

THE MINING AND METALLURGICAL JOURNAL.

FORMERLY THE PACIFIC COAST BULLION.

VOL. XVII., No. 6

LOS ANGELES, CAL., JUNE 15, 1897

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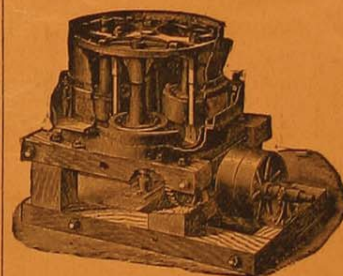


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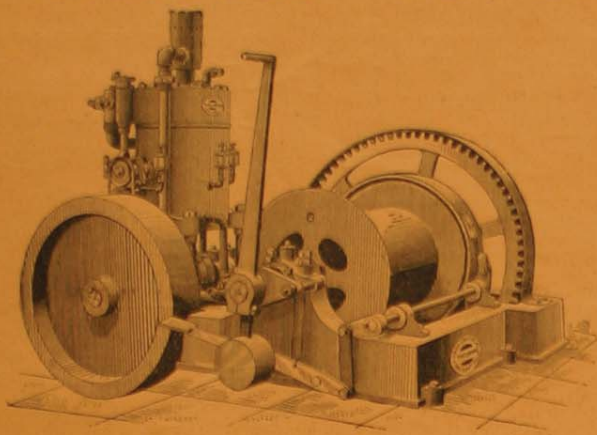
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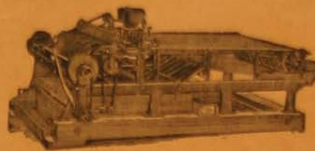
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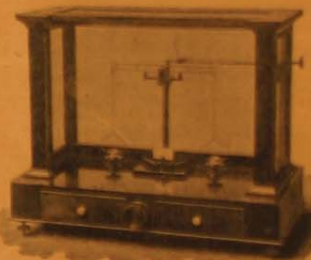
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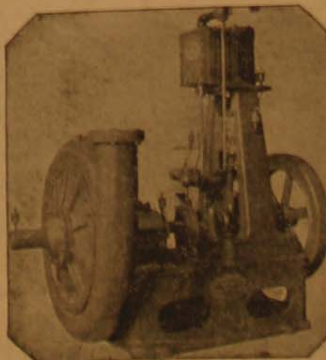
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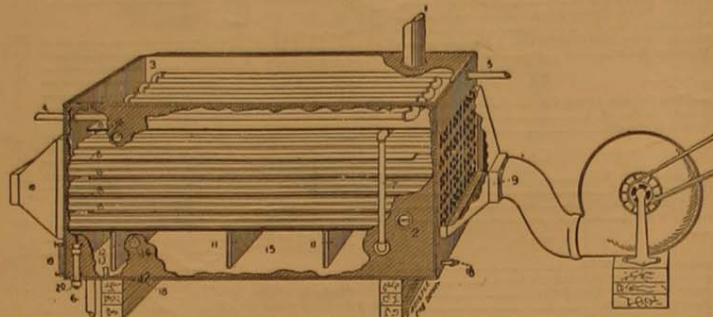
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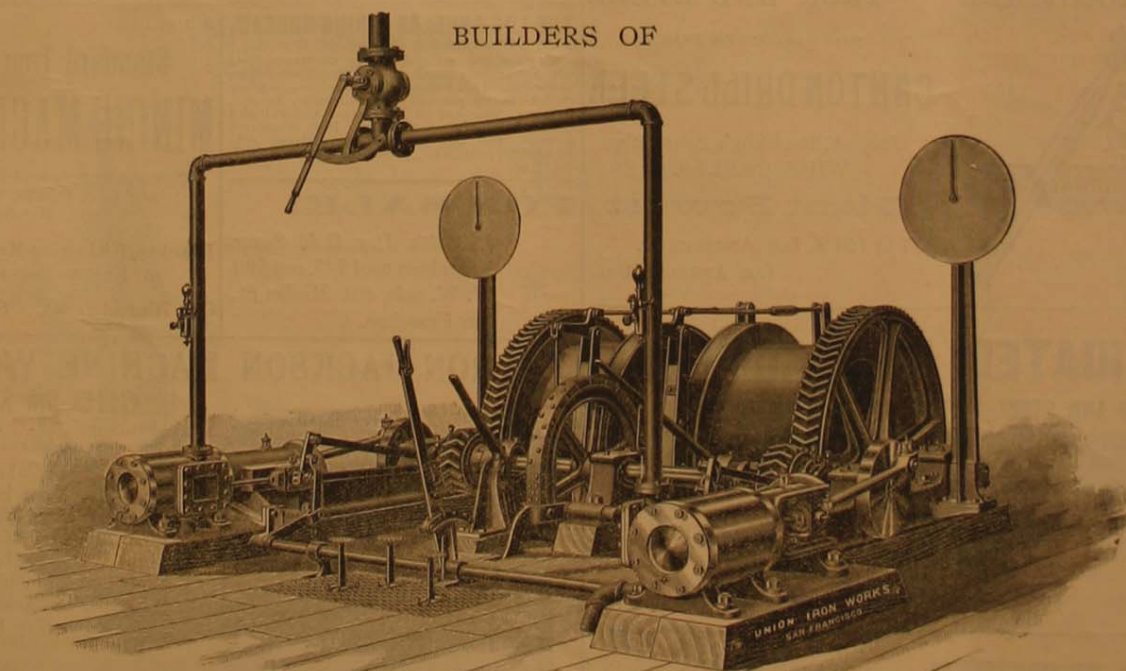
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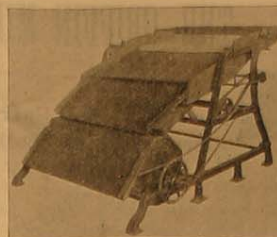
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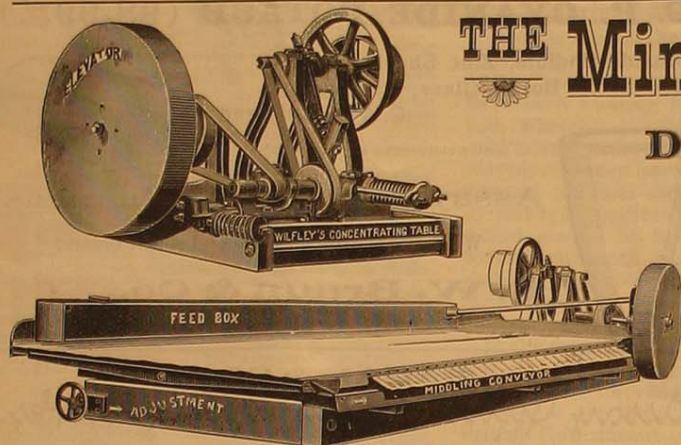
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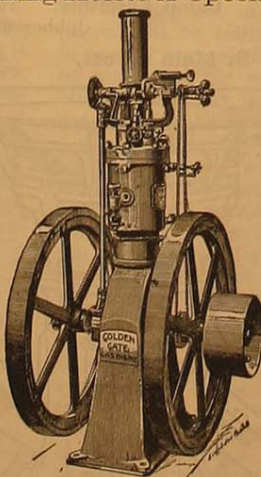
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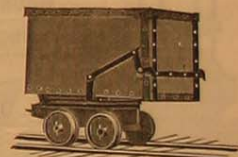
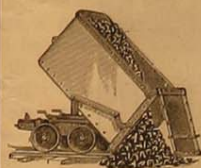
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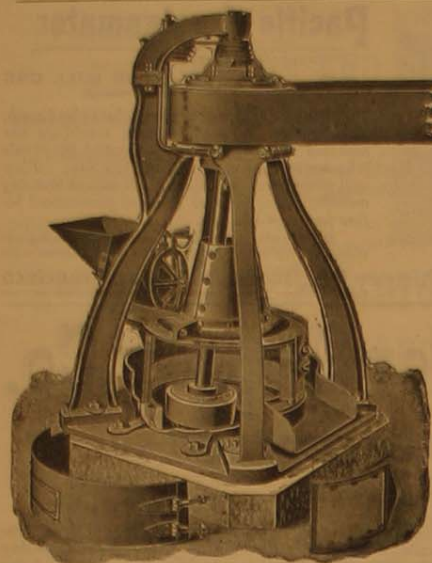


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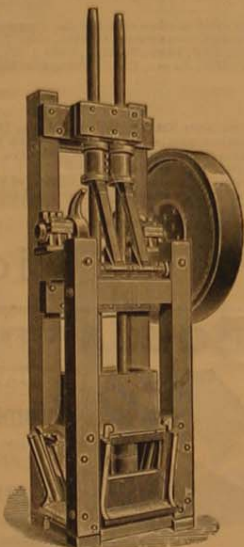
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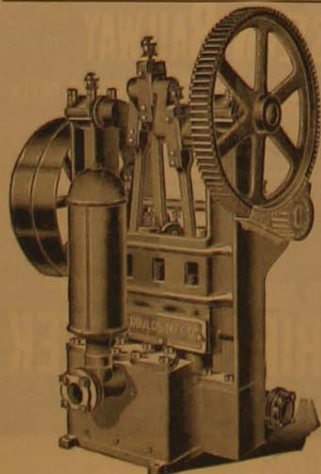
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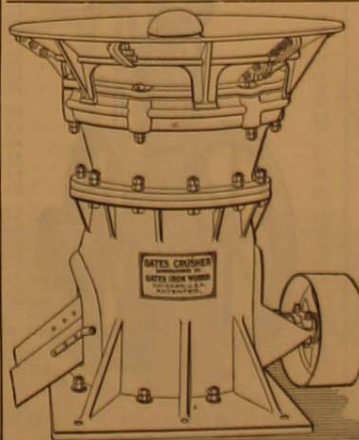
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Special Contributor.

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ISSUED SEMI-MONTHLY

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MONETARY REFORM.

It is reported that the Secretary of the Treasury is working on a new financial plan, and is giving special attention to that part of it which is to provide for the retirement of greenbacks. We will not attempt comment until we know definitely what the scheme is. To enable him to retire the greenbacks, there will have to be some legislation, and, as the administration will have to get rid of congress as soon as the tariff bill is out of the way, it cannot be expected that the Secretary's scheme will be fully made known until congress reassembles, on the first Monday of next November.

We hope the plan will not contemplate the retirement of the silver dollars; but there is no divining what the radical goldite Secretary may propose. Retirement of the greenbacks ought to be a sufficient contraction of the circulation to suit even him; but as he is known to believe that paucity alone constitutes sound money, he may want to go so far as to retire all classes of our money except gold and national bank notes, to be made redeemable with gold.

WHERE ARE THEY AT?

Little is said of the bimetallic commission that has been sent over the Atlantic, to sound European governments on the subject of international silver coinage. When last heard from, the members were lying around Paris and waiting for presentation to President Faure. It is more apparent now than ever that after they have marched up hill they will have to march down, and that they have nearly or quite reached the summit.

It must be humiliating to an ex-vice president of the United States, a live senator and a Boston nabob, to be engaged in the business of soliciting foreign governments to consent to have done that which our government should do on its own account and for its own benefit. It is humiliating to an independent and self-respecting citizen to witness the farce that is being enacted. The begging policy is degrading in the eyes of the civilized world. As our government displays a want of independence and force, its influence

retrogrades; and if it keeps on in the course it is pursuing, it will have no weight in the world's affairs.

BRITISH GREED.

A force of 30,000 or 40,000 men is being massed in South Africa by the British government. The Jamieson raid last autumn on the Boers in South Africa was for the purpose of seizing the rich gold fields in the country of the Boers. It is stated that \$700,000,000 of gold are in sight in the Transvaal, and if that be true, a much larger sum lies hidden. It is reported that the massing of the British troops is for the purpose of making war upon the Transvaal and to gain forcible possession of its gold fields.

For more than eighty years, the British have been hunting for gold the world over, and, wherever possible, they have acquired gold mines, without regard to the means employed, and they have been successful. They adopted the gold standard, because they had so arranged matters that balances of trade would always be in their favor, and, not content with such advantage, they set about grabbing up gold mines, that they might further oppress those who had balances of trade to pay them.

In the face of the facts that the British possess the gold already produced, and of the properties which yield it to a very great extent, there are those who pretend that the British Government can be induced to consent to the double standard, and the government is foolish enough to make efforts in that direction. We can importune, which is undignified and humiliating, and that will be the end of the matter.

AFTER THE TARIFF.

The President wants the money question taken up as soon as the tariff bill is disposed of. So far as he has expressed himself, he only wants a law authorizing the appointment of a commission to prepare a monetary system for congress. Any bill he desires to have passed will be railroaded through the house in regular gag-rule style, but the gag cannot be put upon the senate, and a commission bill may not get through—it certainly will not—without being debated.

A self-respecting congressman will hardly favor a measure which provides for doing work which he should do, and which, inferentially, can be said to mean that he is incompetent to devise such a plan as will be for the best interest of the country. If congress is incompetent for that work, the people should know it and elect those who are. Proper legislation on the money question does not require expert knowledge, but good sense and respect for the people. A money system is not for bankers and money-lenders, but for every class of our population. The question is not what system will assure the largest purchasing and earning power of money, but what will supply the country with a sound and sufficient volume. Congress ought to know how to provide such a volume. A commission will likely be one-sided and will not deal impartially and generously with the subject. It is a mistake to attempt to do indirectly and by irregular methods what should be done directly and in the usual way.

A CONSTITUTIONAL REQUIREMENT.

The constitution empowers congress to coin silver and gold into money, and prescribe the denominational value of the coins. It is the rule of interpretation that when a power is

conferred, it is equivalent to a power to exercise it, and non-exercise of the power is dereliction on the part of congress.

Daniel Webster is acknowledged to have been the ablest constitutional lawyer this country ever produced, and on the coinage question he said "I am clearly of the opinion that neither congress nor any other authority can legally demonetize either silver or gold. The command to congress is to coin money, not destroy it; to create legal tender money for the use of the people, and the grant of authority to create money cannot be construed to mean authority to destroy money."

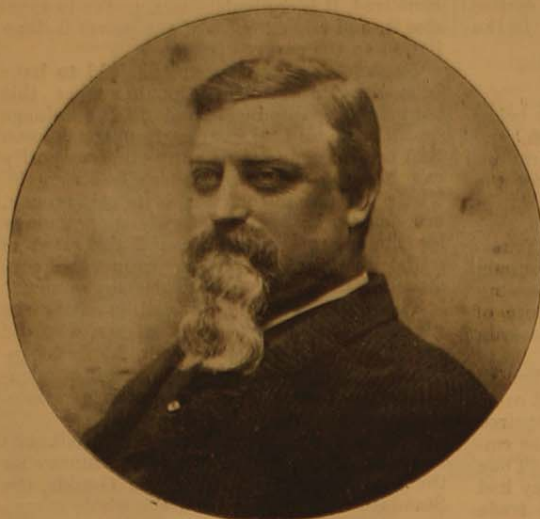
The goldites would do well to study the views of the fathers of those men who did not believe that our people would "find happiness or their liberty's protection in a splendid form of government or powerful aristocratic establishments."

Gold is the money of kings and aristocrats and not of the people. It is the money for the Astors, the Vanderbilts, the Goulds, the Standard Oil Company and the whole money power. Let congress obey the constitution and freely coin both silver and gold, and when that is done, the people will be responsibly for supplying an adequate money volume for themselves. It is not only dereliction of duty on the part of congress to refuse free silver coinage, but it is little short of crime, for such refusal is in the interest of the few, and detrimental to the mass of the people.

WILL IT PROVE A PANACEA?

The chief, if not the only measure of the administration for relief from the present depressed condition is a protective tariff, and the President and Tom Reed are applying whip and spur to promote its immediate passage. Should such a measure be passed as will suit the President and Tom Reed, will it be a panacea for the ills from which the country is suffering? That is the great question. The idea is to stimulate the enlargement and diversification of industries, and to produce a sufficient revenue.

The receipt of revenues can be reduced as well by increase as by reduction of duties, and if industries are so encouraged as that production will very much more largely be increased, importations will be so much less, and, consequently, revenue receipts will be diminished. The most important question is, have we money enough to enlarge and diversify our industries sufficiently to make the result of any importance. The present volume is not adequate to what is needed in investments in public securities to supply the demand of Wall street for speculative purposes and to conduct domestic trade. There is no money to put into industrial development, and to carry forward enterprises which would be reasonably remunerative, and which would vastly increase the production of wealth, and then, there cannot be a sufficient volume for such purposes, so long as the volume of primary or redemption money is as small as it must be, if it is confined to gold only. The only way to increase that volume is to freely coin silver, which will supply the necessary quantity of primary or redemption money, and that which is needed in the retail trade of the country. Money is a tool of commerce, which can not flourish unless there are tools enough to supply its legitimate demands. The men who have the public welfare in charge should study what the people need, rather than what will enlarge the purchasing and earning power of money in the hands of a few capitalists.



Dr. C. T. PEPPER,
President of the Los Angeles Mining and Stock Exchange.

THE LOS ANGELES MINING AND STOCK EXCHANGE.

Its purposes and prominent men connected with it.

The new Board of Directors of the Los Angeles Mining and Stock Exchange are taking hold with the full intent of pushing matters, and the new secretary is doing everything within his power to further the interests of the Exchange and to the carrying out the plans and thoughts of the new Board. It may be of interest to note that some of most prominent men of Los Angeles have now identified themselves with this Exchange and become interested in mining in the last few months, and the purposes and intent of the new Board is to bring just such people together and to create in Los Angeles a mining center. To take and show the people the modus operandi, the possibilities of a good well organized carefully managed mining exchange.

It seems to be a fact that is not generally known that mining interests in Los Angeles have been greatly advanced during the past six months by the discovery of several good mining camps contiguous to Los Angeles. Such men as G. J. Griffith and E. P. Johnson are an active interest in the Exchange and are to be noted among its active men on committees. In conversation, Mr. Griffith voices the thoughts of all the prominent members when he says that the Los Angeles Mining Exchange should be the center of interest for all mining men from this part of the state and that every man should do all in his power to increase the membership and strength of the organization. Mr. Wilder O. Dow has also turned his attention to mining somewhat and taken an active part toward the Exchange. Such men as E. K. Alexander, J. A. Fairchild and R. L. Craig are to be noticed at the meeting room every day talking over matters with the secretary. Mr. H. Jevne is also doing everything in his power to further the interests of the Exchange. Los Angeles National Bank also holds a membership; and the new Board of Directors is doing everything in its power to secure the names of other men of good standing, and more especially the mining men of the community.

Perhaps the only reason the Exchange has not come to front before and become one of the greatest institutions of the city is due largely to the fact that the people in general

have not known of the purpose of the institution, it having taken a back seat during the last political campaign. They propose now to bring it promptly to the front. The new committees are taking hold in good form; no stone will be left unturned to make the Exchange a success. That old prospector and gold digger has always believed with his rugged common-sense in the future of districts contiguous to Los Angeles, there need be no doubt; how splendidly his faith has been justified and his dreams fulfilled, is shown by the recent exhibitions of gold bullion in the different windows of this city, and the increased deposits in the banks.

The Los Angeles Mining and Stock Exchange has been organized in response to the demand for mining investments. With the view of aiding mining and with the other aim further of facilitating the interested capital in, and the development of such other enterprises as may come within the scope of joint stock companies, the Exchange in its reorganized and rejuvenated from starts out under auspices more favorable than attended the origin of many of the large exchanges further east. In conversation with the new secretary, Mr. Parsons said it was an undoubted fact that the Colorado Mining and Stock Exchange of Denver had brought more money into that state in the last five years than all the rest of the financial institutions in it put together; and there is no reason why the Los Angeles Exchange should not have a record equally as high within the next year.

It is the purpose of the Exchange to scrutinize closely the merits of the properties entered on its lists, to guard carefully its own reputation, as well as those who deal in its projects. The Exchange now numbers seventy-five active men.

At the last annual meeting the following Officers and Directors were elected.

OFFICERS

C. T. Pepper.....	President
H. M. Russell.....	Vice-President
E. K. Alexander.....	Treasurer
L. F. Parsons.....	Secretary

DIRECTORS

C. T. Pepper	H. M. Russell
E. K. Alexander	E. L. Allen
F. C. Garbutt	N. F. Wilshire
F. D. Lanterman	W. E. Howard
C. White Mortimer	

CHAIRMAN OF COMMITTEES

Executive.....	E. L. Allen
Finance.....	W. E. Howard
Listing Mines.....	H. M. Russell
Listing Stocks.....	E. K. Alexander
Arbitration.....	C. White Mortimer
Membership.....	N. F. Wilshire
Rules.....	W. O. Dow

We print a portrait of the able President and equally capable and energetic Secretary under whose guidance the Exchange has taken a new lease of life and commenced business on Monday the 7th inst., at No. 202 South Broadway with the following results:

The mining market for the past week on the Exchange has been characterized by active trading and good feeling all along the line. News from the mines have been of most encouraging nature; several good strikes being reported. Quotations show increase in one or two instances and none of the stocks have gone off. Several good orders have been received from Randsburg for stocks

as listed on the Exchange, which undoubtedly helped one of the favorites.

Purchasers of stock on all sharp trades will undoubtedly make money. It is too early yet for any shortage to be credited, and the boys are all on the bull side.

Everything indicates an active and cheerful market for the coming week, and certainly the large traders should make good money. Several good real estate firms are being represented on the floor, and the feeling in the city is of the most encouraging kind.

The following is a list of the sales for the past week by days:

JUNE 7.	
49000 shares of Wedge.....	1c
Little Butte.....	100 at 40
Wedge.....	100 at 85
".....	100 at 87½
".....	100 at 85
Laguna.....	7000 at 9½
Cariboo.....	200 at 47½
Anaconda.....	1000 at 45
Mollie Gibson.....	5000 at 50
JUNE 8.	
Rand Mt.....	19000 at 1
Wedge.....	200 at 85½
".....	100 at 85
Cariboo.....	100 at 48
Laguna.....	6000 at 9½
Iron Mt.....	3000 at 2
Red Cloud.....	1000 at 1
JUNE 9.	
Rand Mt.....	17000 at 1
".....	1000 at 1½
Wedge.....	200 at 87½
".....	200 at 85
".....	100 at 86
".....	200 at 86½
".....	100 at 87½
".....	700 at 87½
Iron Mt.....	1000 at 2½
Portland.....	100 at 58
JUNE 10.	
Rand Mt.....	17000 at 1½
".....	1000 at 1½
".....	5000 at 1½
".....	5000 at 1½ B 30
Cariboo.....	200 at 49
Wedge.....	100 at 87½
".....	1000 at 87½
JUNE 11.	
Wedge.....	900 at 89
".....	100 at 88½
".....	100 at 88½
".....	100 at 90½ S 10
".....	100 at 90 S 10



L. F. PARSONS,
Secretary of the Los Angeles Mining and Stock Exchange.

Wedge.....	100 at 90 1/4 \$10
Iron Mt.....	3000 at 1 1/4
".....	1000 at 1 1/4
Rand Mt.....	1000 at 1 1/4
".....	16000 at 1 1/4

JUNE 12.

Wedge.....	200 at 89 1/4
".....	100 at 89 1/4
".....	100 at 89 1/4
Rand Mt.....	15000 at 1 1/4

The wonderful process by which the mines at Randsburg and the different camps of Southern California are becoming richer and their owners by faithfulness, prudence and care are accumulating dividends, has never been better demonstrated than during the past week. It has been one of surprise to the mining public of Los Angeles and a general advance is looked for. Although the transactions on the Exchange do not show any great flame, still some good money has been made during the past week. The advance is entirely healthy and is but the beginning of a good movement for better prices, which will undoubtedly be sustained by the advance in the value of the properties as represented by stocks on the Exchange. There is no question but English and European money and more especially eastern money of our own country is likely to seek good properties in California during this summer and fall.

It is therefore a good time to buy on all weak spots and hold for the rise which will inevitably follow.

Everything is being done by the present Board of Directors and the brokers on the Exchange to increase its strength, and assure the legitimacy of business in every particular, and it seems to be pretty clear now that it will take a severe shock to start the Exchange on a down turn. On the whole conditions seem to have shaped themselves so that the Exchange has become an absolute necessity to the city. The sky has been clear during the past week on many of the doubts and fears that were expressed when it was first opened. The old and new members are doing everything to promote its welfare.

As a fair sample of what might have been done during the past week, it may be well here to note that Rand Mountain has advanced 3/4 of a cent, or in other words anyone buying on Monday's call has 33 1/3 per cent. profit in one week; that Wedge has advanced 5 cents and that no stock on the list shows a decline.

INTERNATIONAL GOLD MINING CONVENTION.

The phenomenal increase in the production of gold in the United States for the last three years has induced the citizens of Colorado to call a convention with the object of securing such national legislation as may be calculated to promote the business interests and development of the resources of the mining industry in North and South America, to bring together mining men and investors, to increase reciprocal trade among them, to discuss such questions as are naturally suggested by its objects, to cultivate acquaintance and co-operation among the various mining and commercial bodies represented, and to take under advisement the importance of the creation by congress of a department to be known as the Department of Mines and Mining. That mining is a permanent and profitable industry, capable of large expansion, there is now no doubt. It is believed that the gathering together of a large number of interested people at Denver, a central point in the mining region, with displays of minerals from the various states and the discussion of all questions effecting mining interests, will not only be educational in the highest degree, but stimulate the growth of public interest and

the more rapid development of mineral wealth.

The convention will convene in Denver July 7, 1897, at 10 o'clock a. m. and continue in session during the 8th and 9th, and it is hoped will prove to be the greatest and most effective effort ever made in the interest of mining. All mining organizations are earnestly requested to take hold of the matter at once and not only see that their delegates are appointed and attend the convention, but that appropriate mineral displays are made from every mining locality. Arrangements will be made to enable delegates and visitors to inspect some of the mines, smelters, mills and mining machinery plants. It is the desire of the various mining and commercial bodies calling this convention together that all papers read and all discussions be confined to subjects pertaining to mines and mining. The Hon. Alva Adams, governor of Colorado, will call the convention to order. The delegates assembled will elect their permanent officers and arrange for the plan of procedure. The vice-presidents of the convention will be the governors and lieutenant governors of the states and territories in the United States and chairmen of delegations from foreign countries:

BASIS OF REPRESENTATION.

The Governor of each State and Territory to name 30 delegates at large.

The County Commissioners of each County to name 5 delegates.

The Mayor of each City and Town to name 5 delegates.

And one additional for each 10,000 population or fraction thereof.

Each Mining Bureau.....to name 5 delegates.

Each Mining Exchange.....to name 5 delegates.

Each Real Estate Exchange.....to name 5 delegates.

Each Chamber of Commerce.....to name 5 delegates.

Each Board of Trade.....to name 5 delegates.

Each Miners' Union.....to name 5 delegates.

Each Trade and Labor Assembly to name 5 delegates.

All other Commercial Bodies.....to name 5 delegates.

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All communications should be addressed to Irwin Mahon, secretary Executive Committee, International Gold Mining convention, Denver, Colorado.

CORRESPONDENCE

CALIFORNIA.

ISABELLA, KERN CO., CALIFORNIA,

June 10, '97.

EDITOR JOURNAL:—There are fifteen stamps running here almost constantly night and day, and the Los Angeles Gold Mining Company is contemplating doubling the capacity of their ten-stamp mill, and connecting the mill and mine by tramway.

The recent strike of Gilliam & Welch, two miles south of this place, is turning out to be quite a property. The custom mill of Tibbetts & Co. has been running on rock from this mine. Seventeen tons of selected sulphurets have in the meantime been sacked and set aside, which are supposed to contain \$5,000. The mine has been bonded by a man by the name of Root,

A company of Los Angeles men has expended somewhere between \$5,000 and \$10,000 in prospecting for placer on French Gulch, west of this place. This has all been done at the upper end of the claim; whereas, if the ground is ever worked successfully, it will be necessary to commence at the lower end, in order to secure drainage.

The Russian Bear mine, at Glen Olive, is being re-opened by Mr. Mills. This was one of the big-paying mines in this vicinity in 1870, and there is very little question but it will afford work for scores of men for years to come.

I have frequently heard the question as to why mining men ran to Cripple Creek, when there were better gold mines in California. But having observed several new ventures in different parts of the state, I have about concluded that mining enterprises must become amenable to our laws before they can grow in great favor abroad. I will illustrate a management which has come under my notice, but will skip the real names. We will call the company the Brown Metal Development Company of Vermont, with principal office at Quebec, Canada; office of secretary at Buffalo, N. Y.; incorporated under the laws of West Virginia; capitalized under the nominal sum of two millions of dollars; with the word "unassessable," printed in large letters across the face of the stock certificates; with seven hundred stock-holders, scattered through the British dominions, with mine holdings only at (we will say) Mud View, in this state; and these representing an actual outlay of not more than \$30,000. Now, if we could only add that, without any output of precious metals, these gilt-edged securities were paying dividends, and were being quoted upon the London stock board, we will see the necessity of legal control.

Respectfully, STEPHEN BARTON.

RED ROCK, KERN CO., CAL.,

June 8, 1897.

EDITOR JOURNAL:—The old St. John mine, that was the life of the old town of Sageland, is to be pumped out and retimbered.

This mine was worked by Senator Jones, in the early Seventies, to a depth of 750 feet, when, owing to the cost of supplies and high wages, with a poor pumping plant, the mine was shut down. A company of Los Angeles capitalists have bonded the mine from Mr. Butterbread, who has been working the mine in a small way since it was abandoned by Senator Jones, for \$5000, and intend to sink a new shaft and crosscut the vein at 950 feet in depth.

The St. John Company have also bought the Gold Hill mines and the water right on Kelsy Creek, and, if successful with the new St. John shaft, will put in an electric power plant for the reduction of the St. John and Gold Hill ores.

The town of Sageland is a fair sample of the ups and downs of some western mining towns, and, where there was once a thriving settlement of six or seven hundred people, there is not a board left standing of the buildings, except the fences around the graves in the graveyard on the hill side above the town. It also illustrates the benefit that can be derived from one good mine in a camp.

At the Barton mine, at Claraville, there is being erected a ten-stamp mill. The Barton people report a vein of low-grade ore 30 feet in width, and, with timber and water on the ground, should liven up the Piute Mountain country this summer.

The Santa Rosa mine, near Pinon Moun-

tain, has reached a depth of 85 feet in fair ore.

The Jagers mine is down 116 feet. They are drifting east and west along the ore body.

Reports have reached here of a rich strike near Butterbread Springs in the Granite King mine, there having been extracted over 50 tons of \$20 ore in sinking a 40-foot shaft.

A reliable and conservative miner, just in from the Granite King, says he thinks the ore will mill more than \$20 per ton, as the ore dump shows free gold all over it—there being no trouble in breaking specimens from any part of the dump.

The Granite King has a fine mill site $\frac{3}{4}$ of a mile below the mine, with water enough to run a ten-stamp mill. Plenty of good oak and fine timber can be had for fuel within 12 miles of the mine. Some of the mill men that are looking for mill sites in the desert should visit the Granite King country.

At the Lee mine, they are crosscutting at the 100-foot level. We hear they refused \$30,000 for this property.

Old Sol has his eye on Randsburg and the desert camps and will make himself felt this summer.

W. R.

EL PASO, TEXAS, June 10, '97.

EDITOR JOURNAL:—I take pleasure to inform you that the Planchas Mining and Milling Company has been bought out by its ex-treasurer, R. J. Downey, and ex-general manager, Miguel Bornio, owner of the Colorado, Verde and Guadalupe mines. The new company will be known under the head of the Colorado Mining and Milling Company, R. J. Downey, financial agent, and Miguel Bornio, general manager, with offices at New Orleans, Nogales and El Paso.

Under the able management of Capt. Miguel Bornio, the company will be successful in its operations, as when Capt. Bornio takes hold of any enterprise, he generally comes out a sure winner. Very truly,

WM. B. REED.

MEXICO.

MEXICO CITY, June 12, '97.

EDITOR JOURNAL:—One of the most important mining transactions that have taken place in this country for some time is the sale of the Esperanza mine of El Oro Mining camp, in the state of Mexico, which has just been consummated by Mr. C. D. Lane, the well known mining man of California.

Mr. Lane secured a bond on this property some time ago, by depositing the sum of \$100,000 as earnest money, to be forfeited in case he failed to bring about the sale. He has now succeeded in perfecting the deal, and the price at which the property passes into the hands of a New York syndicate is \$6,000,000, (six million dollars) Mexican money.

The ore body of this mine is immense, measuring 40 feet in width and of an indefinite depth, consisting of ore of an average value of \$30 per ton, principally gold. There is a large reduction plant on the property, and an electric plant has just been put into the mines by G. & O. Braniff of this city.

Mr. August Sahlberg, the present manager and one of the principal owners, was the original locator of this mine. The shares of the company have for a long time been quoted on the market at \$1500 per share. As the new company will increase the size of the reduction plant materially, and make other improvements for the economical handling of the mine's output, the price of the shares will undoubtedly advance.

Mr. Harry Simons, formerly chemist and assayer at the Detroit Copper Company of Globe, Arizona, and late metallurgist at the Malacate Mining and Smelting Company, at Sultepec, has resigned the latter position and located in Aguas Calientes, to take charge of a branch assay office established at that city by Messrs. Heckelman & McCann, of Ciudad de Mexico. This latter firm has secured the contract of the Lewis Company, the heaviest ore shippers in the Republic, to handle their consignments to the La Gran Fundicion Central Mexicana, at Aguas Calientes.

A valuable pocket of rich gold ore was recently encountered in the Bella Manana mine in this state. The ore assayed 730 ounces Troy in gold per ton, and several hundred pounds of this ore was taken out of the shaft known as El Boton de Oro. Large sums of money have been repeatedly offered for this property, but the owners, who are wealthy Spanish merchants of this city, have refused to sell.

Mr. J. T. Hall, formerly agent of the Lewis Co., at their ore purchasing agency at Oaxaca, has resigned his position and opened up an assay office in that city. Oaxaca is one of the mining states that is enjoying a boom in the mining line. Quite a number of valuable mines, both old and new discoveries, have been opened up of late with good paying results. The Union Iron Works, of San Francisco, will shortly erect a 10-stamp mill on one of the gold mines in Oaxaca, that has been lying idle for many years. Mr. George Ames, jr., is now in Frisco making the necessary arrangements to ship the machinery.

A valuable platinum deposit was recently encountered not far from the mining camp of Pachuca, the finders refusing to divulge the locality. They brought it in a little buckskin sack to the assay office of Heckelman & McCann in this city. It weighed 3000 grammes, and an assay showed it to be 95 per cent pure platinum, which at 40c. per gramme, U. S. currency, the present market value, made the value of the find \$1140.

SPECIAL.

Miscellaneous Mining News.

ARIZONA.

Iron Mountain Group.

This promising group of mining claims is located in the Tucson mountains, a distance of about 14 miles west of the ancient town of Tucson. The group consists of five full-size mining claims, containing about 105 acres of real mineral land. The property is a new discovery, and already the lucky owners, Wheatley & Harrison, have completed over 100 feet of development work on the group, and the owners feel highly elated on what work they have already accomplished, because at the bottom of each working the ore becomes much richer. The bodies of ore range in width from 20 to 100 feet. The ore assays in iron 50 per cent, gold \$6.00, silver 7 oz., lead 15 per cent, and from 5 to 10 per cent copper.

Ora Plata Group.

This property is located at Arivaca, Pima county, A. T., and consists of four full mining claims. This property is owned by Harrison Brander, Barrett and Johnson. The property is well developed over 540 feet, by shafts and tunnels. The veins average in

width from 2 to 6 feet, and averages in gold about \$10.00 and silver 35 ounces. A beautiful stream of water runs close by this property, and good roads run direct to the mines.

C. O. D. Bonded.

The great producer of precious minerals in the past, the C. O. D., near Kingman, has been bonded to Colorado parties. We are not familiar with the conditions on which the mine be handled, but we do know that the C. O. D. has a great record as a producer and there is little doubt but that if the main shaft is put into condition to sink and the water is pumped out, and the mine handled properly that it will be as great a producer in the future as in the past. The advantage of having money is to take advantage of conditions that require money to overcome.

The Model Mine.

Ex-Governor Powers of Prescott owns this property located near Phoenix, Ariz. He has given a bond on it to Tom Fisher, Dennis Ryan and Dennis Flynn, all good fellows and excellent miners. The old mine was partially caved in. The property is now in good order and the ore is fairly rich. Practically a new mine has been opened on the same ledge. The old shaft is filled with water. Ore is being taken from the ledge and milled as development work progresses. Ten men are employed.

An important mining deal closed at Congress the fore part of June, is the bonding of the well known Tooker claims and Reese & Holden's "Last Chance" together with the purchase of the Gibson ranch on Date creek for water rights and mill site. These properties are located about one and a half miles west of the Congress and are among the best in the vicinity. The purchasers are Rochester, N. Y., parties.

Chicago capitalists have taken hold of Fred Williams' group of fourteen mines in Maple Gulch, Yavapai county. Some of the capitalists are now on the ground. Fitzgerald & Black have a contract to drive a tunnel 300 feet on the Storm Cloud one of this group.

More machinery rolled out of Prescott for the Chicago Gold Mining company June 2nd. About twenty-seven men are reported to be grading for the mill at this camp. Jack Morrison and Ed Hoagland are putting up the saw mill and have 100 logs now on the ground.—*Phoenix Republican*.

The Tucson Smelter closed down last week after a weeks run. They will start up again as soon as they have a sufficient quantity of ore on which to work.

The Twin Buttes mine of the Olive district near Tucson has been sold. It is stated on good authority that the sum of \$105,000 is deposited in an eastern bank, and information was received last week by wire that the deed would be taken up on the 12th of this month. This is the rich group copper of mines of Baxter, Irish and Ellis. The shaft is down 100 feet and a fine body of high grade ore lays at the bottom.

The Eureka Mining Co. have their steam hoist at work on the Eureka mine. After the shaft is sunk 250 feet deep and the ore continues reduction works will be erected by the company on the ground.

Chloride Dan, an old time prospector of Tombstone has recently rediscovered the Costello Chief mine and has it bonded for \$100,000.

The Safford Milling company of Phoenix has ordered new machinery for the purpose of enlarging their capacity. This is found to be necessary to accommodate the increasing business.

The Slack Bros. of Prescott have sold their Poorman Mining Claim near Prescott to John Burris for \$500.

The Copper Queen company of Bisbee one year ago was carrying 600 men on its pay rolls; it is now carrying 1,200, this is a pointer as to the increased copper production.

It is reported and authentically stated that a new strike of wonderful richness and dimensions was made at Pearce a day or two since on a claim worked by Carlyon and Martin on the Pearce Hill adjoining the Commonwealth mine. Details of the strike are meagre, but all reports agree on the fabulous richness of the ore.

The 40-stamp mill of the White Hills Mining and Milling Company at White Hills, Mohave County, is drawing near completion.

Paul Maguire is taking out gold ore from his lease on Sammy Withers Lookout mine near Kingman that is worth several dollars per pound.

About 350 men are on the pay roll of the White Hills Mining & Milling Co.

The first payment was made by B. S. Hayes & Co. of Los Angeles, to A. M. McDuffee for the Tennessee mine, situated at Chloride. The purchasers are men of means who will at once put a force of men at work and operate the mine as it should be to make it pay. The Tennessee is a silver-lead property, the ore averaging by the car load 60 per cent lead, 20 ounces silver and \$2 in gold. The ore chute is large and well defined. Judge O. T. Porter was the promoter of the sale, assisted by Kean St. Charles. We consider the Tennessee among the best mines in Arizona and the purchasers have secured a bonanza at reasonable figures. In addition to ores in sight in the mine there is now on the dump about 3000 tons of tailings that an averaged assay returns a value of \$16 per ton.

The Rosemont smelter will be "blown in" again, in a few days for steady run. They have an exceptional fine lot of ore to run on.

The Relief mine near Phoenix, Ariz., has recently struck a four inch streak of ore running \$7,000 to the ton. The mine is about to be sold to eastern capitalists.

The Sun Dance stamp mill and concentrators is running steadily on ore from the company's mines. L. A. Davies superintendent of the property expects to have his rolls and jigs ready to start up in a short time. The mill is said to be a very complete one.

Fillippe Monreal has deeded one-half interest in the Buena Vista mine, Pine Grove district, to Paul Johns for \$100.

A. H. Douglas has sold all of his interest in the Alice mine, on Cherry creek, to Eugene Greenwood, for \$250, according to a deed filed for record.

Frank Briot, who came in from Chaparral the fore part of the month, says the new hoist and gasoline engine on the Gopher mine has been started up and works highly satisfactory. This is the first gasoline engine in the territory to be used in connection with a mining hoist.

W. G. Press, who has taken a bond on the Storm Cloud group of mines in Maple gulch, owned by Fred Williams has just let a contract for 350 feet of work to be done on the property. He also expected to let another contract today for sinking a shaft 100 feet. Mr. Press proposes to push work in the development of this property.—*Prescott Journal-Miner*.

CALIFORNIA.

KERN COUNTY.

Randsburg Notes.

The Val Verde has put on more men and is now producing plenty of pay ore.

Preparations are now being made to establish a dry concentrating plant here, which will be in operation early next month.

There are about twenty men working on the Rand mine at present. This is encouraging, and we hope soon to see the number increased.

The owners of the Wedge are still pushing work on their shaft, and are getting down at a lively rate. They will be down the length of their rope, 415 feet, within a week or so, when the new power hoist will be put in position, and sinking to a depth of 1000 feet continued.

A rich strike was made in the Alameda claim, a mile and a half from Randsburg, Kern County, and which is an extension of the Val Verde claims. Very coarse gold was found in the quartz. Some of the ore assayed into the hundreds and some into the thousands per ton. The claim is about a quarter of a mile from the new town of Johannesburg, and the strike is claimed to be one of the richest yet made in that section.

Pioneer Mine Clean Up.

Miners' stories are sometimes like those of fishermen, each one goes the last one a few dollars to the ton better, but Mr. Brown, one of the partners of Brown, Fleming and Keegan, owners of the Pioneer mine, near Havilah, brought into Bakersfield the shining metal a few days ago to back up his story. It was the proceeds of 50 tons of ore, milled at the Tibbetts & Hooper mill, and amounted to \$3900 of free gold and 2½ tons of sulphurets, worth \$1650 per ton. Their mine was an old shaft that had been worked and abandoned by Dick Scott some years ago. He never got much out of the mine, but their developments showed that he had been within two feet of \$100 rock when he quit. Mr. Brown says that more good ore is being taken out in the Kernville and Havilah districts than ever before.

Dan Manning, who has knocked about the mountains for several years with rather hard luck, has struck a good thing, and has 15 tons of rock which promises \$250 per ton.

RIVERSIDE COUNTY.

From a gentleman who has recently returned to this city from the Dale, we glean the following facts. Mr. Baird, one of the owners of the Baird-Lingo property, who is putting in a Freeman concentrator, intends to put in a cyanide plant in the near future.

The Halesworth Brothers have 200 feet of tunnel completed on the Evening Star, and have encountered a good body of ore.

The Virginia Dale people are getting very satisfactory returns from their mill, and intend in the near future to erect a cyanide plant with which to work their tailings.

In the placer mines, located about six or seven miles from Lyons, well in the Pinto mountains, considerable work is being executed. The miners are making in the neighborhood of eight dollars to the man.

The wagon road between Amboy and the Dale is nearly completed. A good flow of water has been secured in the well sunk on the road between the above points.

It is reported that the claims owned by Ellerman and Ferguson have been divided—Ellerman taking half and Ferguson the other half. Development work on the Ferguson group will be pushed this summer.

H. B. Botsford, in sinking the main shaft on the Brooklyn, struck two feet of rich ore. He has been shipping ore from this mine that runs over \$100 per ton.

The Lost Horse Mining and Milling Company have their new ten stamp mill nearly in place, and the mine is looking better than ever before.

Sweezy & Morris have just let a contract for a 100-foot shaft and will run a level on their claim. They have an excellent vein of good ore.

F. C. Baird has made arrangements with the Santa Fe Railroad to consign shipments direct to the Dale via Amboy, and will transport the freight from Amboy to Dale himself.

Messrs. Kanney & Kunican, of San Bernardino expect to return to the Dale in the fall, and commence development work on the Monkey Wrench and Little Jack claims.

The mining records of the Gavalan Mining District were filed with the County Recorder, June 7th, in accordance with the new law, which requires such a procedure.

We take the following from the *Riverside Globe*:

Recent reports from the Good Hope mine are to the effect that a new lead of very rich ore has been struck.

Mrs. John Anderson left, June 14th, for the Tauquitz mining district, where she goes to join her husband who is interested in the mines there.

Frank D. Wells and others have several claims in the Aztec Mining District, recently formed at Corn Springs on the desert, on which they are doing considerable work, with good results.

Messrs. I. A. Witherspoon, A. B. McCormick, D. G. Mitchell and E. H. Gruwell have sent men out to look into some mines in which they are interested, on the southeast slope of San Jacinto mountains. Quartz taken from a 25-foot ledge assays very encouragingly, and warrants the development work which the owners are putting into the claims.

A number of mining properties have changed hands in the county recently, and the inquiry for other property betokens great interest in the mining industry of this section. There seems to be plenty of capital waiting to take hold of and develop good propositions. Winchester, Tauquitz, Cahuilla and Eagle Mountain districts are especially attracting the attention of monied men.

The following mining claims were filed with the County Recorder since our last report:

EAGLE MOUNTAIN DISTRICT.

MINER.	LOCATOR.
True Blue.....	Frank Baxter
Blackhawk.....	N. B. Curtis
Canon.....	N. B. Curtis
Queen Etta.....	L. R. VanLeuven
Red Rock.....	N. B. Curtis
Queen May.....	N. B. Curtis
Summit.....	N. B. Curtis
Independence.....	E. E. Bowles et al

IRONWOOD DISTRICT.

Sandy.....	Lee Gray
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ORA TANGO DISTRICT.

Southern Belle.....	I. A. Witherspoon et al.
Northern Belle.....	I. A. Witherspoon et al.
Ora Tango.....	I. A. Witherspoon et al.

MENIFEE DISTRICT.

Joker.....	Dave Payton
Cracker Jack.....	M. W. Steele

CAHUILLA DISTRICT.

Anita No. 3.....	Jno. Cobwin
Deer.....	D. G. Mitchell et al.
White Quartz No. 2.....	D. G. Mitchell

PINON DISTRICT.

Koelin.....	R. W. Chilson
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TAUQUITZ DISTRICT.

K. C. Placer.....	R. W. Chilson
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SAN BERNARDINO COUNTY.

Needles Notes.

Superintendent F. Holmes is preparing to make a five-ton shipment of high grade ore.

Steve Bedell, of the Sheep Trail mine, has a shipment of ore on the bank of the river.

The mines were never looking better, and it is an assured fact that we will have a mill of 30-ton capacity inside of three months.

Mr. Dexter and Conductor Burroughs made some important discoveries near Secret Pass last week, the ore they found being free milling.

The people on Silver Creek are all doing well. Groose is shipping ore to Kingman. Warner and others are putting the old Moss mine in shape, and are expecting parties every day to start up more substantial improvements.

The Green Leaf mine, located about 37 miles north of San Bernardino, and leased by Dickey and Simmons, of San Bernardino, is now being developed and put on a paying basis. It was an old abandoned mine, but now has all improved machinery and employs 20 men. Mr. Parker, the manager, is a thorough miner and has brought it up to the standard.

TOULUMNE COUNTY.

Sonora Notes.

The Longfellow mine is ready to start up steam.

The vein at the Andy Johnson mine now shows up from three to six feet in width.

A rich prospect has been encountered by John Voss on his ranch at Summit Pass.

L. Dondero the other day picked up a three ounce nugget on his claim at Yankee Hill.

The mill at the Golden Rule started up again a few days ago, it having been thoroughly overhauled.

The Shawmut-Eagle Mining Co. has decided to increase its milling capacity by adding 15 stamps.

The Accident had twenty tons of ore worked at James' mill at Big Creek, that gave returns away up.

The Wanderer mine would be one of the leading mines in the county had it a ghost of a show. Some ore worked last week paid well.

The Gold Bug has ten feet of good milling ore in the face of a new drift run north from a little canyon crossing the claims. It is a mine of great promise.

The No Name mine, joining the Mt. Jefferson on the west, had twenty tons of ore worked recently that went \$7.50 per ton. This mine is owned by an Italian company.

The mill of the Kanaka mine, eight miles above Groveland, is dropping its ten stamps on ore that pays \$20 in gold to the ton. The mine never looked as well as at present in the lower levels.

The mill at the Norwegian mine has been closed down for a few days, to allow of the repair of some water pipes. At this mine a force of twenty men is employed, and the shaft is now down a distance of 125 feet.

COLORADO.

(Extracts from Mining Industry and Review.)

HINSDALE COUNTY.

The Hiwassee is employing 8 men and will soon put on 10 more intending to make a shipment of 10 carloads of ore during June. The ore has all been blocked out.

Some 18 or 20 men are employed on the Black Crook group which is contiguous to the Golden Fleece and Hiwassee groups.

The New Year's adit level is now in 300 feet.

Siley and Dawson are getting out an ore from the Contention that runs \$115 to \$120 net per ton in carload lots. This lode adjoins the Mayflower. The main drift in the Carrie is now in 350 feet with some good ore showing now and then.

SAN MIGUEL COUNTY.

T. E. Thomas is taking down some good rock from the Texas, and will make another shipment before long. The last shipment from the Texas returned excellent values.

The tram has been carrying ore from Suffolk leases to the mill this week, and a good business is now being done. The leasers are all doing first rate, and some very fine rock is being treated.

Work on the Duquesne at Ames is progressing at a good rate, and the new tunnel being driven by Gus Moro and partner under contract is making good headway and will be completed before long.

J. Cole will shortly open up the High Line-El Paso group, and commence taking out ore for shipment. As the claims lie above timber line, the snow renders it nearly impossible to get to them.

George Shoemaker and J. H. McEwen, owners of the Shoemaker group, on Silver mountain, commenced work on a tunnel this week which will strike under the vein proper. An upraise will be made at the completion of this tunnel, and more working ground will be uncovered.

The Ilium mill commenced stamping on the Single Standard dumps this week, and will continue to do so for some time. This rock is low grade, but it is believed the experiment will prove a success. The Ilium is now running to its full capacity on this and Gold King ore, the latter returning fine values.

Louis Kafka and E. W. Meyers have recently secured ground just below the Argenta Falls, between and joining the Minerva and Belle of the West, in the Slumgullion overflow but in solid formation. The surface ore shows \$10 to \$20 in gold and some silver. Development is expected to cut a vein of gray copper and tellurides.

Doc Bothwell is uncovering a strong lead on the Pensacola on the peninsula jutting out into Lake Sanchristobal.

GILPIN COUNTY.

Eastern parties are considering the purchase of the Mabel group, of which the Mabel mine is the principal property. A winze is now being sunk in the tunnel level, which is in a distance of about 700 feet. Large bodies of mineral have been opened up in this mine and it is in splendid condition for selling, having been developed with that intention. The present work is being done by contract labor.

The Powers, also Russell gulch, is producing \$40 ore. The shaft is being sunk from the 100-foot level it being down now a depth of 120 feet. The property is worked by leasers.

A large streak of iron ore has been struck in the Notaway operated by a pool of Black Hawk miners. This property has produced over \$300,000 from the surface workings most of which Senator Chaffee, received when working the mine in an early day. This body of ore gave a value, in the last trial, of \$165 per ton. As it is not a deep shaft, a whim is to be placed at once and the mine improved.

Eastern parties had an expert examining and making up a report during last week of the Montgomery mine, Bobtail hill. An option has been obtained for 15 days. This mine adjoins the famous Running Lode mine, which has produced such vast sums.

The Pocahontus, Dora hill, has had parties examining it with the idea of bonding and leasing the same. This mine carries considerable silver, as well as gold.

A new shaft house is being erected over a new plant of machinery already in place, at the Peterson mine, Gregory hill.

The leasers on the O. K. mine, Mammoth hill, has been shipping both milling and smelting ore during the past week.

CHAFFEE COUNTY.

An assay on ore from the Independence run \$1182 which of course made its owner feel very well satisfied with his investment.

A. H. Smith reports an assay return from his Columbine mine on Bear creek of \$420. This ore was taken from a 4-inch streak in a good vein.

A strike of ore that runs \$1000 to the ton has been made in the Cameron. The report is authentic and therefore has confidence in the district been wonderfully strengthened.

A number of men are at work on Lake Creek, and the old C&H Creek placer is in full operation. They have plenty of water

and got their fourth giant at work last week. About 70 men are employed besides a small force at work the old Richey patch.

EL PASO COUNTY.

Cripple Creek Notes.

The Standard tunnel is penetrating Beacon Hill from the south-west. The work is under the supervision of Lyman E. White of Victor.

Preparations are going on at the Abe Lincoln to start the pumps as soon as the eight-inch water column arrives and can be put in place. With the Abe Lincoln and the Tutt & Penrose shaft working in conjunction, the Arcadia Company's Lone Star in operation again, and De Witt's new shaft going down as is expected very shortly, Poverty gulch will begin to look as business-like as it did in the palmy days.

The big new plant of machinery on the Grace Arthur was put in operation last week.

New blood is being infused into the Bansemmer-Everhardt sub-lease on the Arequa townsite. The Tabor-Pierce Company has bought a quarter interest from the sub-lessees, and has a bond and lease on three-eighths of the lease. There is now a fifty-five-foot shaft on the property, and there is said to be \$68 ore in the bottom of the hole. The lessees began work last week to run the shaft down another hundred feet. The work will be pushed vigorously and the mine thoroughly prospected while the life of the lease lasts.

The Golconda Gold Mining Company, operating several claims on the south slope of Squaw mountain, has ordered a new plant of heavy machinery, consisting of an eighty-horse power boiler, a four-drill Leyman air drill and large hoister and duplex pump; also a new shaft house, 30x40 feet, will be added to the present shaft house over shaft No. 2. The company is also considering the advisability of erecting two more steam plants on its claims, one on the Hale & Holmes lease and the other on the Golconda claim on Battle mountain. The property is now being operated by Pittsburg capitalists.

CLEAR CREEK COUNTY.

The Lincoln mill is running on its own ores, and its bins and stopes are filled with this class of mineral. While some of it is low grade, the management will make it pay handsomely.

The Victor shaft on Bellevue mountain is being sunk on a good showing of mineral.

Jones & Cassady, on the Ada mine, are shipping tonnage of mill dirt, and during the week shipped some smelting ore, which ran 3.30 ounces gold, 10.2 ounces silver, and 2 per cent copper. In the second level the streak is four feet wide.

Parties are again working the Patton lode, and are taking out some mineral.

The clean up at the Prince placer will not take place before the end of the month, at which time something big may be expected, for in the ground now working the gravel has never been washed and some big nuggets are being found.

While Lawson shipped but two carloads of smelting ore last month, it is expected that about fifteen carloads will be moved during June.

Danison, Knowles & Straub are reported to have found good mineral on their lease on the Republican mine.

The shaft on the Crown Point-Virginia mine is now down 690 feet and going deeper. There is no other development work.

The Specie Payment mine was a shipper this week of that high-grade ore for which that lode is noted.

Leasers in the Little Annie have opened into some richer ore and will soon be shipping smelting ore.

The great and only Lamartine is keeping up its lick in the production of ore, and several teams are kept constantly in use in hauling this output to the ore-buying concerns.

MEXICO.

New Copper Camp in Mexico.

A Nogales dispatch says: A settlement of the long standing difficulties between the owners and claimants of the great copper properties in the Cananea mountains of Sonora, Mexico, has at last been effected. On Thursday, W. C. Green, of Bisbee, Arizona, J. B. Storman, of Magdalena, Sonora, and W. S. Cranz, of Nogales, Arizona, representing individually and collectively all the conflicting interests, held a conference at Nogales, in which, acting under the legal advice of W. P. Harlow, the previously existing differences were harmonized and arrangements effected, by which the properties are to be exploited on a large scale.

The properties involved not only include the rich copper mines operated by the Cananea Copper Company and those formerly operated by the Sonora Copper Company, but also embraces the Cobre Grande and adjacent mines formerly occupied by Gen. Pesqueira. The Cobre Grande commands particular interest from the evidences presented of having been worked on a most extensive scale centuries ago. The ruined smelters, office, residence and dwellings, all go to show that there existed a scene of busy activity, now long desolate, while the cemetery near at hand tells that the camp was long in existence. The ruined forts show, also, that provision was made for military protection of the people against the marauding Apache. To the practiced eye, the slag dumps, embracing thousands of tons, and the vast quarries whence the ore was taken, tell a story of the one time output would read like a fairy tale.

The properties embraced in the new deal include about 100 pertinencies, of which 14 were claimed by the Cananea Copper Company.

The region has long been famous for its vast deposits of copper ores bearing precious metals, and capitalists and investors have looked for years in that direction with longing eyes. But the incubus of conflicting titles and a fear of protracted and expensive litigation hung over all.

NEW MEXICO.

Hillsboro Mines and Mills.

Output of Hillsboro gold mines for the week ending Thursday, June 10th, 1897, as reported for *The Advocate*:

	Tons
Wicks.....	40
Butler.....	15
Richmond.....	45
Happy Jack.....	10
Snake Group.....	45
Opportunity.....	15
Sherman.....	10
Prosper.....	10
Eighty-five.....	10

Rex (silver-lead).....	25
Total.....	225

Total output since Jan. 1, 1897,—3,645.
Good pay ore has been struck the 375, the lowest level of the Richmond mine.

E. Strickland getting some good ore from his Gray Eagle mine.

Spencer and Scanlon report favorably as to condition and output of the Ben Butler mine.

J. E. Collard has the Bonanza mill running this week on Snake ore and has about 150 tons more to treat.

J. B. McPherson is making the necessary arrangements to work on the Mountain King extension of the Wicks lead.

The Jersey Lilly ore treated at the Oak mill yielded over four ounces gold per ton on the plate and the usual percentage of rich concentrates.

Sanders, Revans and Murray have ready for shipment 400 sacks of ore running four and a half ounces gold twenty-two ounces silver and two per cent copper.

J. Zimmerman, who is leasing on the Happy Jack, has in sight a streak of ore eight inches wide and thirty feet long that will average \$200 per ton in gold.

A very important mining deal was concluded this week in the granting of a long lease of the Bobtail mine by Supt. Hughes for H. M. Porter, of Denver, the owner. The lessees are Messrs. Preisser, Hirsch, Collard and Welch, who are prepared to invest a considerable amount in money and labor to put the old mine in working condition.

Red River Camp.

A recent assay of the Victor lode shows \$10.69 at a depth of 8 feet.

R. A. Strain made an assay of ore from the Ragged Pants Dick which ran \$4,000.

A double shift was put to work on the Maid of Erin last Monday. It is owned by the Brazos Mining company.

The Garfield owned by Abe and George Hixenbaugh and W. J. Gossett, is being developed as rapidly as possible. Ore is being sent to Raton for a mill run.

An assay from the Challenge made by R. A. Strain gives \$216. It is located near Hematite and is owned by R. W. Hornback.

A recent surface assay on the Black Hawk, situated between Bob Cat and Sheep Canyon gives an assay of \$8.20. It is owned by Wm. Walsen.

The owners of the Monkey lode intend to run a tunnel in 150 feet. A recent assay gave \$14.20 at a depth of 40 feet. Two shifts are at work. The owners are F. B. Benson and O. O. Stevens.

The Black Copper situated on Copper Hill, near the well known Copper King, is showing up well. There is a three foot lead of trachyte and granite and a true fissure vein. It pans gold freely across the lead. It is owned by Abe Hixenbaugh and T. F. Wells.

The Dallas Mining company, composed of conductors and engineers of the A., T. & S. F., had three surface assays made which gave \$6 at 12 feet, \$12 at 15 feet and \$28 at 30 feet. It is situated about three miles down Red River and has a 3 foot lode.

Bland Notes.

The Albemarle continues to improve under the constant work of the big force of men employed there.

The Yellowjacket in Colla canyon is constantly working and shows marked improvement from time to time.

Some extensive work is being done on the Cyclone, a valuable property in the neighborhood of the Albemarle.

Jack Carpenter and Henry Brown are working under contract on the Pamlico, which is considered to be the richest in Gold of the Albemarle group of four mines.

Messrs. McCoy and Paxton are doing the assessment work on the Kersarge in Colla canyon, and the property is showing up in the most satisfactory shape. The quartz is of a fine grade and they have a full 1500 feet in length and 10 feet in width of it.

The upraise from the second to the third level in the Lone Star was completed on Sunday June 6th, and as a consequence a large body of valuable shipping ore has been opened up. Production has been going on during the week and it is expected that shipments will soon be resumed.

It is the intention of the Bland Milling company to start up on the first of July. The improvement of the old plant has been steadily progressing and the additional buildings which have been erected have completely transformed its former appearance. Much of the material for the necessary changes was received during the week. June 10th the large force of men employed there were made happy by receiving their pay for the month of May.—*Bland Herald-Weekly*.

To Dredge the Rio Grande.

A mining deal has just been consummated between J. W. McNeal, J. O. Stevens and E. W. Iliff and the Missouri Dredge company whereby a giant dredge is to be erected by that company and completed ready for operation by the 4th of July.

The dredge will be constructed on a large flat boat 120 feet in length by 25 feet in width and consists of an immense team shovel by means of which the sands of the river bed will be raised to the boat and then sluiced as in ordinary placer mining and a derrick and grappeling hooks that will swing a twenty ton boulder with a ease of a child playing marbles.

A 200 power boiler and three large engines will furnish the power for the shovels, derrick, etc.

The machinery is built with a guaranteed capacity to handle 500 yards of dirt per ten hours. And in addition to other things a pump with a capacity 5000 gallons per minute is to be put in.

This branch of mining is in its infancy and if proven a success is but the key to the dredging of many miles of great river channels throughout the west at a profit far greater than that accrued from any other mining.

The consolidated company as it now stands own about eleven miles of the river channel next above Lock Wamsley's toll bridge on the Rio Grande where the bridge on the canyon is the deepest and sands are richest.

The Helen Rae mill at White Oaks is running day and night. The mine shows a large vein of high grade ore.

Messrs. Hart and Sawyers have assumed charge of the Kelley mill at Golden, which is grinding away again on ore from the Carley & Aranda strike in the San Pedro mine. The Tuerto mill, under the management of Mr. James Brydon, will also treat 150 tons of the ore.

Hon. C. B. Eddy has turned over coal lands valued at \$200,000 to the New Mexico Railway & Coal company. These coal deposits are located at Malagra and Salado in Lincoln county.

The mill building for the Western Belle mill was completed last week. The placing of the machinery was commenced this week under the supervision of Capt. Jesse Thomas. The motive power to be employed will be a new departaure in the mining and milling business in this territory. On account of the scarcity of water in the vicinity of the mill and mine, gasoline engines will be used. Two 20-horse-power engines furnish the power for the mine and mill. The hoist will be run by means of compressed air, the air compressor being run by a gasoline engine.

Messrs. Taylor and Petrie are pushing work on the Ashville, and have purchased a whim from Thos Scales which they will put up on the property.

Red River is about to have a smelter. We wish the new enterprise success.

R. S. Philpot owner of some valuable mining property in the Cochiti district near Bland is taking out good ore.

GENERAL NEWS

Recent Mining Patents.

Messrs. Townsend Bros., Solicitors of Patents, 9 Downey Block, Los Angeles, Cal., report the following list of recent patents of interest to mining men:

May 11, 1897. No. 582,569. Amalgamator. L. Baudendistle and J. A. Dingley, Denver, Colorado. A revoluble cylinder having detachable amalgamating plates applied to the periphery of the heads. The intention consists in the manner of fastening the plates in place.

May 11. No. 582,570. Concentrating Table for Treating Auriferous Material. W. P. Wynne and T. Tregurtha, Ballarat, Victoria. A concentrating table consisting of an inclined iron plate having successive rows of ribs each of right angle triangle shape, the base resting on and integral with the board and slightly concave to allow material to flow out of each end and upon the succeeding ribs. Concentrates are retained in the concave portion of each rib.

May 11. No. 582,408. Concentrator. G. M. Whitney, Lawson, Colorado. A shaking concentrating pan is provided with a discharge spout having an opening therein; a gate for controlling said opening and an electrical battery provided with connections actuated by the rise of the concentrates in the pan to open the gate and allow the concentrates to discharge when sufficiently accumulated.

May 11. No. 582,520. Pulverizing or Grinding Mill. G. W. Brown, Freemansburg, Penn. A rotary ball pulverizer is provided with a rotary hopper having discharge spouts adapted to discharge the material to be ground, directly between each ball and its die.

May 18. No. 583,006. Apparatus for Grinding Ores or other Substances. J. K. Clark, Butte, Montana. A rotary barrel has grinding balls arranged therein. The ore is fed by forced feed through one hollow trunion and discharges from the other hollow trunion, the device being constructed so that no current of air passes through the barrel.

May 18. No. 582,669. Ore Concentrating and Milling Machine. J. McKinnon, Coalfax, Washington, assignor of one-third of C. W. Page, same place. The grinding device is a circular mortar having grinding wheels traveling therein. The invention relates particularly to the concentrating pans and means whereby the material is discharged into a portion or all of the pans as desired. The claims, thirty-eight in number, embrace numerous features of construction.

May 25. No. 583,354. Amalgamator. F. B. Austin, Tempe, Arizona. Comprises a sluice-way and pan of insulating material arranged in the sluice-way for containing mercury, metal partitions arranged in the pan and a carbon plate arranged in the sluice-way above the pan, and a source of electricity having one pole connected with the mercury pan and the other pole connected with the carbon plate.

May 25. No. 583,059. Underrun Roller Pulverizing Mill. G. R. King and A. Raymond, Chicago, Illinois. An amular die has rotary rollers arranged therein, the rollers being cup-shaped and carried upon and operated by shafts projecting from underneath.

Copies of these patents may be obtained for 10 cents each by addressing Townsend Bros., as above, or for 5 cents each by addressing the Commissioner of Patents, Washington, D. C.

Probably no business has progressed more in the way of mechanical improvement in the last twenty years than the manufacturing of mining machinery. Twenty years ago the miner knew little or nothing about processes which today are considered indispensable to the economical working of low grade ores. Hand and horse power hoists were used then, instead of the large, magnificent hoists of today. Among the firms who have kept pace with the development of the mining industry, none are better known than the Hendrie & Bolthoff Manufacturing Company, of Denver, Colorado, one of the oldest mining machinery houses in the United States, whose shops are among the best equipped in the west for turning out anything needed by the miners.

The hoists manufactured by the Hendrie & Bolthoff Manufacturing Co. are attracting very great attention, consisting as they do of a combination of *gear and friction*, and possessing all the desirable features of each. These hoists can be inspected at the new store of Chas. B. Boothe & Co. in this city, where they will be sold at Denver rates.

The trade of the Hendrie & Bolthoff Manufacturing Co. extends to all parts of the west and Mexico, and their machinery always makes a reputation for itself, as they make a specialty of allowing nothing to leave their foundries until it has been personally inspected and found in perfect order.

The Pacific Mining and Machinery Co., of 129 First street, San Francisco, California, have recently shipped one No. 3 Pacific Amalgamator to the Golden Group Mining Co., to be placed in their quartz mill near Acton, Los Angeles County, California.

The enormous profit of the sale of dynamite in the Transvaal, South Africa, has attracted attention to the facilities afforded by California in that regard. The local powder companies are considering the invasion of that profitable field. It is thought that an energetic business policy could secure the sale in that and other mining fields of 500 tons per month.

The output reported for May, by the Atlantic Mining Company of Michigan, is 296½ tons, an increase of 16½ tons over the April report, and an increase of 38 tons over May, 1896.

The receipts of the United States Treasury in May, though the amount for customs decreased from that for April by \$7,569,341, were still large, amounting to \$29,797,390. The payments were \$29,109,259, showing a surplus of \$688,131. For the 11 months of the fiscal year, from July 1st to May 31st, the Treasury statement is as follows:

	1895-96.	1896-97.
Customs.....	\$149,182,547	\$154,756,241
Internal revenue.	133,155,548	133,354,178
Miscellaneous...	17,466,711	22,489,601
Total receipts.	\$299,804,806	\$310,600,020
Disbursements	326,786,681	342,873,141

Deficit..... \$26,981,875 \$32,273,121
The largest item of expenditure this year was \$131,013,936 for pensions.

The statement of the United States Treasury on Thursday, June 3d shows balances in excess of outstanding certificates as below, comparison being made with the statement for the corresponding date last week:

	May 27.	June 3.	Changes.
Gold.....	\$144,100,600	\$144,517,402	I. \$416,802
Silver.....	24,633,320	24,922,389	I. 289,069
Legal tenders.....	82,620,801	81,115,187	D. 1505,614
Treasury notes, etc.	28,085,999	28,096,667	I. 10,668
Totals.....	\$229,440,720	\$229,151,635	I. \$289,069

Treasury deposits with national banks amounted to \$17,249,881, an increase of \$394,806 during the week.

The New Mining Laws.

We are in receipt of the Directory of Mines for May, 1897, published by the *Mining Record*, of Victoria, B. C.

The book contains the only complete synopsis of the mining laws of British Columbia yet published, with amendments passed at the late session of the legislature, carefully compiled by Archer Martin, barrister-at-law, Victoria, B. C. In addition to the above, much useful information relating to the mines and mining generally is included in the May number; so that it is at present the most valuable work for the money (50c.) to mining men to be found in the market.

Parties wishing to know the state of the mining laws as they stand today should procure a copy of the work.

The total output of gold in California, from and including 1848 to January 1, 1896, has reached the enormous amount of \$1,265,217,217.00, or about twice the amount now in circulation in the United States, and thirty-one per cent of the world's supply at the present time.

The Calumet & Hecla shipped 9,375,812 pounds of copper between January 1st and May 15th.

In Western Australia the output of gold continues to increase, and the mines promise a great industry in the colony. Yet it will be impossible for some time to float any of these mines in the London market, on account of the great amount of over capitalization of the past two years. The output for the first three months of 1897 was 113,208 ounces. Last year the total output of the colony was 281,265 ounces.

PERSONAL NEWS ITEMS

D. A. Regan and Wm. S. Reese, of New York City, came in to Tucson from the east June 8th. They are interested in mining and left June 10th for Rosemont.

Charles Wimple, of Chicago, Ill., is at present in Sonora, Mexico, negotiating an important mining sale.

Joseph Pratt, who has been at Big Bug, Arizona, where he is interested in a quartz mill, has left for Rahway, N. J.

Lester Jackson returned to Prescott, Ariz., the first of June from a trip to California where he has been on mining business.

Dan B. Gillette, well known to all Arizonians, arrived in Prescott from the east June 6th to look over the country again in the interest of capital.

W. H. Skidmore, of the Bennett mine near Las Cruces, went to El Paso, Texas, Monday, June 7th.

Evan Davas, of Azusa, who is interested in some silver and gold quartz mines in the Slate Range near Panamint, intends to visit them and do some development work after July 4th and if encouragement is met with he will continue the work right along.

George C. Underhill, an expert marble workman of Rutland, Vt., with several skilled quarrymen, arrived at the Big Bug onyx mine the 4th inst.

Hon. W. S. Hopewell, of Hillsboro, New Mexico, has recently returned home from the Tennessee Exposition. He is loud in his praise of James Leeson in charge of the New Mexico mineral exhibit.

Harry Maquides returned last week to Tucson, Ariz., from an extensive tour through the state of Sonora, Mexico. He reports the mining business on the boom throughout the state.

W. F. Williams, manager of the Monto Cristo Mining company at Golden, N. M., was in Albuquerque looking after the repairing of a boiler last week.

J. B. Tully, of Nevada City, Calif., has gone to Hillsboro, New Mexico, to investigate some placer mines.

Charley Richards, the well known mining man, has returned to Kingman, Mohave Co., Arizona, from the east where he has been for several months.

D. G. Chalmers, late speaker of the House, has located at Washington Camp near Phoenix, Ariz., with a view of developing his mining properties.

B. S. Hayes, of Los Angeles, has been visiting in Kingman, Arizona, the fore part of June.

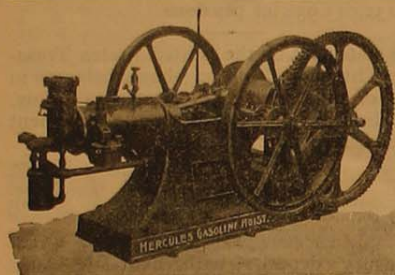
Frank Drake, a practical mining man of many years' experience and formerly of California and Nevada, but for the past six years located at Chimpas, State of Chihuahua, Mexico, as superintendent of some gold and silver mines being worked by an English syndicate, passed through Los Angeles on the 10th inst. enroute for San Francisco and London, England.

Frank Baxter, the well known mining man of the Eagle Mountains in Riverside Co., Cal., has returned to this city for a short visit. He gives a very glowing account of mining in the Eagles.

Henry Lockhart, one of the owners of the Crown Point mine at Bland, New Mexico, was at Albuquerque last week.

Messrs. Kenney & Kunican, of San Bernardino, who are interested in quartz mining at Virginia Dale, have just returned from there to pass the heated term at their homes in San Bernardino.

Jacob Rosenberg, who represents Chicago capital, was in Phoenix, Ariz., June 4th, where he is about to consummate a large deal.



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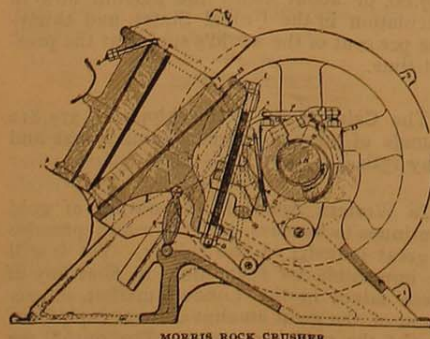
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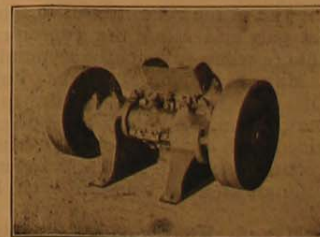
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Marcus Brunswick and F. A. Manzanares, two prominent citizens of Las Vegas, were in Silver City Monday, June 7th, looking after their valuable gold mining interests at Hanover.

Hon. J. B. Teeters, a prominent mining man of Phoenix and Harqua Hala, has been in Yuma for the past week investigating the mining resources of Yuma and its vicinity.

Chas. F. Blackburn, a practical mining geologist of many years' experience on this coast, is now inspecting mining properties on the Colorado Desert. He proposes to take in the eastern part of Riverside and San Diego counties after the heated season has passed.

Wm. Kieff of Cook's Peak, N. M. was in Silver City last week on business.

Major Eugene Fechet, superintendent of the Old Glory mines at Oro Blanco, Arizona, was in Tucson June 8th.

Hon. J. W. Fleming returned to Silver City from an official inspection of the coal mines of the territory the last of May.

S. L. Parks, of Crittenden, Ariz., has been visiting Tucson the past week.

F. C. Earle, agent of the El Paso Smelting Co., was in Phoenix the first part of June.

James Boyd, of Hedges, Cal., has arrived in Kingman, Arizona, where he will be welcomed by his many old friends.

F. C. Baird, of Dale City, Riverside Co., Cal., was in Los Angeles June 8th to see to the construction of his plant, consisting of a crusher, rolls, concentrator and the Porter Electro-Cyanide Process.

Joseph Anderson, Jr., of New York, has recently made a trip to Phoenix, Ariz., to examine the Relief mine for eastern capital.

Philip J. Barber, of Bland, New Mexico, is one of the delegates appointed by the county commissioners to attend the International Gold Mining convention to be held in Denver on July 7th, 8th and 9th.

C. R. Millard, of Cooney, New Mexico, is in St. Louis, Mo., on business.

J. W. Akers, of Santa Fe, N. M., and W. E. Dame, Cerrillos, N. M., have gone to Sonora, New Mexico, on mining business.

Alfred Harvey, president of the English syndicate who own the Banner mine at Oroville, Butte county, California, is expected at the mine in a few days.

Fred Goodwin, of Philadelphia, a mining man of note, arrived in Bland, New Mexico, the fore part of this month.

Rumor has it that Col. Bennett, of Cooney, N. M., has gone to Boston to induce his company to begin operations with their mill and mine.

W. H. Woodham, of Los Angeles, has been in Winchester, Riverside Co., Cal., for a few days inspecting some mines near there.

Frank Buck, of Bland, New Mexico, is now mining at Riverside, Pinal Co., Ariz.

R. N. Dickman, the mining expert has again visited the Hillsboro Mining district.

W. F. Williams, a mining man of Golden, New Mexico, was in Albuquerque the 10th inst.

A. F. Judson, of Colton, Cal., was in Winchester, Riverside Co., Cal., the other day.

Thos. Lowthian, a mining man of Bland, N. M., was in Santa Fe the 4th of June.

C. A. Martine, a prominent mining man of Georgetown, Colorado, was en route to Guerrero, Mexico, the fore part of June.

Geo. R. Brown, superintendent of the Copper Queen mine at Mogollon, was in Silver City last week.

J. M. Sigafus, of the Good Hope mine at Perris, Cal., was in Riverside the other day.

Owen McDonald, manager of the Eighty-five mine at Hillsboro, N. M., has gone to San Francisco, Cal., for his health.

James F. Matthews, of New York, arrived in the City of Mexico last month. Mr. Matthews is one of the largest stock-holders of the Velardena properties.

Ex-Governor A. W. McIntire, of Colorado, returned to Denver last month from a trip to the mining districts of Mexico.

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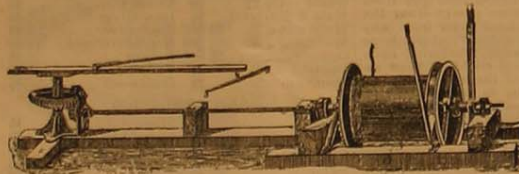
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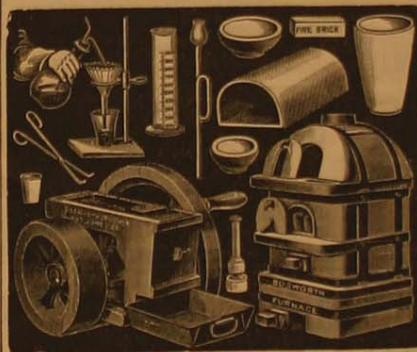
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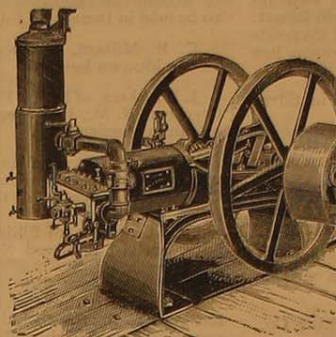
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Cal. Crude Oil	40	grav.	7 1/2	galls.	at 5c.	\$ 37 1/2
Distillate	40	"	7 1/2	"	8c.	60
Dom. Coal Oil	40	"	7 1/2	"	12 1/2c.	93 1/2
Gasoline	40	"	8 1/2	"	16c.	131 1/4
City Gas	1000	feet.			2.00	

We manufacture all sizes from two-horse power up, and will guarantee that our Engines will run cheaper and are more simple in construction, have fewer parts and hence are more durable than any other Gas Engines on the market. Seeing is believing; don't take our word for it, but come and investigate for yourselves. You can always see one in operation at our works. We will be pleased to see you and will at all times take pleasure in showing them up. Our Engines are specially adapted for running well and mining machinery—in fact, for any kind of power desired, we are the pioneers and first inventors of Crude Oil and Distillate Engines. WE ALWAYS LEAD AND NEVER FOLLOW. Send for Catalogue and Price List of the only genuine Crude Oil and Distillate Engine made.

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June 1	60 1/2	11 00	3 12 1/2
" 2	61	11 00	3 12 1/2
" 3	60	11 00	3 12 1/2
" 4	60	11 00	3 12 1/2
" 5	60	11 00	3 12 1/2
" 6	60	11 00	3 12 1/2
" 7	60	11 00	3 12 1/2
" 8	60	11 00	3 12 1/2
" 9	60 1/2	11 00	3 12 1/2
" 10	60 1/2	11 00	3 12 1/2
" 11	60 1/2	11 00	3 12 1/2
" 12	60 1/2	11 00	3 12 1/2
" 13	60 1/2	11 00	3 12 1/2
" 14	60 1/2	11 00	3 12 1/2
" 15	60 1/2	11 00	3 12 1/2

MINING STOCK QUOTATIONS

BOSTON

Allouez	50	Franklin	11 00
Atlantic	25 00	Kearsarge	19 00
Boston & Mont	124 00	Oceola	35 00
Butte & Boston	18 00	Quincy	12 00
Cal. & Helca	370 00	Tamarack	125 00
Centennial	9 00	Wolverine	10 50

COLORADO SPRINGS STOCKS

Aetna	01	Insley	009 1/2
Alamo	08 1/2	Ironclad	09 1/2
Anaconda	60	Isabella	48 1/2
Argentum Juariata	2 1/2	Isabella Stamp	30
Bangkok Corn Belle	02 1/2	Jack Pot	05 1/2
Bankers	9	Jefferson	08 1/2
Ben Hur	06	Keystone	06
C & N	03 1/2	Matoa	08 1/2
C & C	04	Mollie Gibson	35
Crescent	08 1/2	Monarch	05 1/2
C C Consolidated	11	Mount Rosa	01 1/2
Des Moines	03 1/2	Orphan Bell	11 1/2
Fannie Rawlins	07 1/2	Pharmacist	13 1/2
Favorite	10	Portland	95
Garfield	01 1/2	Peoples	05 1/2
Garfield Grouse	07 1/2	Sacramento	03 1/2
Golden Eagle	03 1/2	Specimen	08 1/2
Golden Fleece	36	Star of the West	009
Gold & Globe	18 1/2	Trachyte	03 1/2
Gold Standard	05 1/2	Union Gold	24
Humboldt	03	Virginia M	05
Ingham C	15	Work	08 1/2

DENVER STOCK REPORT.

Aetna	01	Elkton	1 40
Alamo	08 1/2	Eureka	009
Anaconda	60	Garfield Grouse	07 1/2
Arcadia	004	Golden Fleece	36
" Consolidated	05	Goldsmith	008 1/2
Argentum Junia	29 1/2	Gold Standard	05 1/2
Bangkok-C-Bell	02 1/2	Iron Clad	009 1/2
Bankers	09 1/2	Isabella	47
Ben Hur	06	Jack Pot	07
Bob Lee	02	Jefferson	11 1/2
Boston & C	01 1/2	Mollie Gibson	35
Chimbarazo	01 1/2	New Zealand	05 1/2
C & N	03 1/2	Peoples	03 1/2
Colo. C. & M.	04	Pharmacist	13 1/2
C. C. Con	11		

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Am Den & M Co	95	Granite Mount	1 25
Bald Butte	2 25	Hope	50
Benton Group	10	Iron Mountain	40
Bi-Metallic	1 75	Moulton	30
Combination	35	Potosi	08

NEW YORK.

Crown Point	19	Sierra Nevada	35
Con. Cal. & Va.	1 80	Standard	1 75
Gould & Curry	30	Union Con.	30
Hale & Norcross	90	Iron Silver	40
Homestake	80 50	Quicksilver	3 00
Mexican	30	Quicksilver pfid	17 05
Ontario	10 50	Bulwer	22
Ophir	71	Yellow Jacket	25
Plymouth	20	Deadwood	45

SAN FRANCISCO.

Alta	08	Mono	15
Belcher	18	Nevada Queen	50
Best & Belcher	72	Ophir	71
Bodie Con	55	Potosi	06
Chollar	95	Savage	38
Con. Cal. & Va.	1 80	Sierra Nevada	35
Crown Point	19	Union Con	30
Hale & Norcross	90	Uta	07
Mexican	30	Yellow Jacket	25
Gould & Curry	30	Bulwer	25

ST. LOUIS.

American Nettle	25	Elizabeth	20
Granite Mt.	120	Leo	3
Adams	60	Hope	1 40
Bi-Metallic	1 75	Small Hopes	90

SALT LAKE CITY

Ajax	70	Horn Silver	2 22
Alliance	30	Little Pittsburg	02
Am. Nat. G's	00 1/2	Lucky Bill	00
Anchor	1 20	Mammoth	2 05
Bogart	07 1/2	Mercur	7 05
Bull, Beck	9 00	Ontario	10 50
Cent. Eureka	52 50	Rover	47 1/2
Dalton	20	Silver King	18 50
Daly	5 50	Sioux Con	2 40
Daly West	8 00	Swansea	2 95
Four Aces	12	So. Swansea	1 90
Galena	1 10	Tetro	05
Geyser	1 45	Uta	07

MEXICO

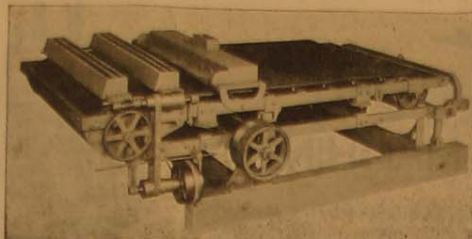
Name of Company	State	Price
Angustias	Guanajuato	\$ 500
Asturiana y Anexas	Zacatecas	220
Cerro Colorado	Chihuahua	10
Concepcion y Anexas	S. Luis Potosi	180
El Oro	Guanajuato	80
do. pre.	"	00
Luz de Borda	Michoacan	30
do. Free stock	"	30
Luz de Maravillas	Hidalgo	100
Real del Monte	"	1,100
Rosario y Anexas	Durango	50
do. pref.	"	50
San Rafael del Oro	"	50
Sta. Gert y Anexas	Guanajuato	90
do. Free Stock	"	187
Ste. Maria de la Paz	S. Luis Potosi	480
Tlaxiungo	Puebla	40
Zomahuacan (gold)	Vera Cruz	100
Zona Min de Pozos	Guanajuato	40

Note—The above Mexican stocks are figured on the basis of Mexican silver

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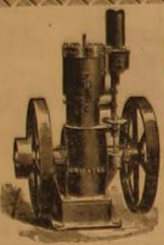
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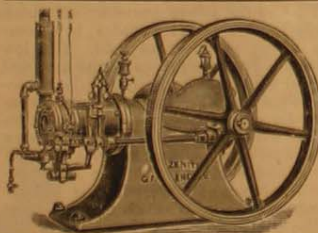
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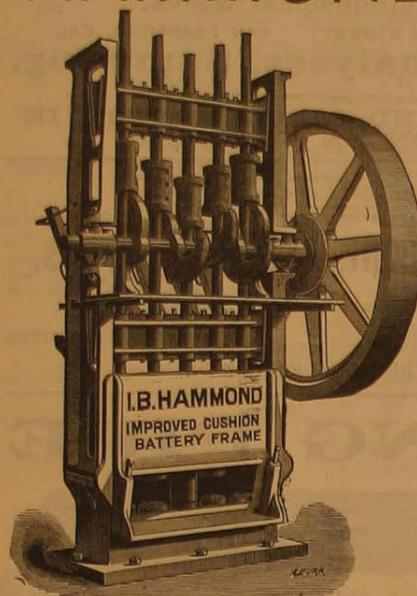
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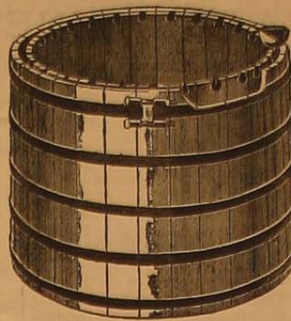
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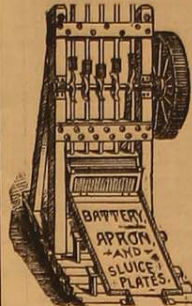
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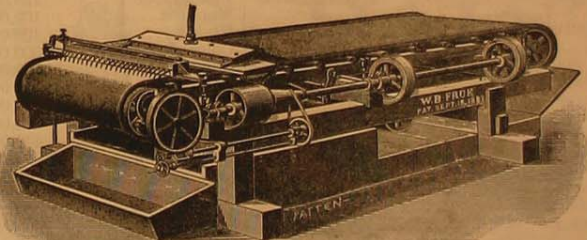
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INCORPORATED MINES PAYING DIVIDENDS.

NAMES OF MINES	LOCATION	No. of Shares	Capital Stock	Par Value	Amount of last Dividend	Date of Last Dividend	Total Amount Paid in Dividends	Kind of Mineral Produced
Aetna Cons.	California	100,000	\$ 500,000	\$ 5	\$ 10	Dec. 1896	\$ 80,000	Q.
Adams	Colorado	150,000	1,500,000	5	0 04	October 1895	693,500	S, L, C.
Alaska, Treadwell	Alaska	200,000	5,000,000	25	10	January, 1897	3,100,000	G.
Alaska Mexican	Alaska	200,000	1,000,000	5	37 1/2	January, 1897	191,031	G.
Anaconda	Montana	100,000	30,000,000	25	1 25	Nov. 1896	2,250,000	C.
Anchoria Leland	Colorado	600,000	600,000	1	01	Jan. 1897	36,000	G.
Atlantic	Michigan	40,000	1,000,000	25	1 00	Feb. 1897	740,000	C.
Bald Butte	Montana	250,000	250,000	1	03	June 1896	470,500	S, G.
Bangkok C-Bell	Colorado	600,000	600,000	1	1	July 1896	107,510	S, L, C.
Big Six	Colorado	500,000	500,000	1	00 1/2	May 1896	2,500	G, S.
Boston & Montana	Montana	150,000	3,750,000	25	3 00	Feb. 1897	5,375,000	G, C, S.
Bullion Beck and Champ	Utah	100,000	1,000,000	10	20	Jan. 1897	1,967,000	G, S.
Cariboo	British Col.	800,000	800,000	1	02	Dec. 1896	125,410	G.
C. O. D.	Montana	500,000	500,000	1	01	March 1896	25,000	G.
Calumet & Hecla	Michigan	100,000	2,500,000	25	15 00	Feb. 1897	48,350,000	C.
Centennial Eureka	Utah	30,000	1,500,000	50	1 00	Jan. 1897	1,890,000	S, L.
Champion	California	3,400	34,000	10	10	August 1895	216,900	G.
Consolidated, California and Virginia	Nevada	216,000	21,600,000	100	25	March 1895	3,592,800	S, G.
Coptis	Nevada	100,000	10,000,000	100	01	Feb. 1895	77,000
Copper Queen Consolidated	Arizona	200,000	2,000,000	10	25	June 1895	1,910,000	C.
Daly	Utah	150,000	3,000,000	20	25	August 1896	2,887,500	S, L.
Deadwood Terra	Dakota	200,000	5,000,000	25	50	August 1896	1,240,000	G.
De Lamar	Idaho	400,000	2,000,000	5	25	October 1896	2,250,100	S, L.
Derbec B Gravel	California	100,000	10,000,000	100	05	March 1894	265,000	G.
Dalton and Lark	Utah	2 500,000	2,500,000	1	00 1/2	August 1896	87,500	S, L.
Elkhorn	Montana	200,000	1,000,000	5	06	June 1895	1,212,000	S.
Elkton	Colorado	500,000	500,000	1	02	Jan. 1897	191,960	G, S.
Enterprise	Colorado	500,000	2,500,000	5	25	June 1893	825,000	S.
Florence	Montana	500,000	2,500,000	5	01	Jan. 1897	118,096	S.
Franklin	Michigan	40,000	1,000,000	25	2 00	January 1894	1,240,000	C.
Galena	Utah	100,000	1,000,000	10	05	Jan. 1897	71,000	G, S, L.
Garfield Grouse	Colorado	1,200,000	1,200,000	1	01	Dec. 1896	24,000	G.
Golden Eagle	Colorado	1,000,000	1,000,000	1	01	Sep. 1896	10,000	G.
Golden Fleets	Colorado	600,000	600,000	1	01	Dec. 1896	563,179	G, S.
Gold Coin	Colorado	200,000	1,250,000	5	10	Feb. 1897	120,000	G, S.
Gold and Globe	Colorado	750,000	750,000	1	3-10	August 1896	36,000	G.
Granite Mountain	Montana	400,000	10,000,000	25	20	July 1892	12,120,000	S.
Great Western	California	50,000	5,000,000	100	10	November 1893	388,368	Q.
Hecla Consolidated	Montana	30,000	1,500,000	50	50	January 1897	2,160,000	S, G, L, C.
Helena & Frisco	Idaho	500,000	2,500,000	5	04	August 1896	475,000	S, L.
Homestake	Dakota	125,000	12,500,000	100	25	Jan. 1897	6,118,750	G.
Hope	Montana	100,000	1,000,000	10	10	February 1897	662,252	S.
Horn Silver	Utah	400,000	10,000,000	25	12 1/2	January 1896	5,137,500	S, L.
Iowa	Colorado	1,000,000	310,000	1	01	Dec. 1896	60,000	G.
Iron Mountain	Montana	500,000	5,000,000	10	06	Nov. 1896	492,500	S.
Isabella	Colorado	2 250,000	5,000,000	100	01	Sep. 1896	202,500	G.
Kearsarge	Michigan	40,000	1,000,000	25	00	Dec. 1895	120,000	C.
Kennedy	California	100,000	10,000,000	1	48	August 1895	1,796,000	G.
Leadville Consolidated	Colorado	400,000	4,000,000	10	03	February 1893	316,000	S, L.
Mail of Erin	Colorado	600,000	3,000,000	5	02	November 1895	740,000	S, L, G, C.
Mayflower	California	60,000	1,200,000	20	10	December 1895	242,000	G.
Minnesota	Minnesota	165,000	16,500,000	100	1 50	July 1896	3,240,000	I.
Mollie Gibson	Colorado	1,000,000	5,000,000	5	05	January 1895	4,080,000	S.
Montana Lt	Montana	600,000	3,300,000	5	06 1/4	October 1895	2,890,637	G, S.
Moose	Colorado	600,000	600,000	1	01	January 1896	186,000	G.
Morning Star	California	2,400	240,000	100	7 00	October 1895	446,400	G.
Moulton	Montana	400,000	2,000,000	5	05	February 1894	460,000	S, G.
Mercur	Utah	200,000	5,000,000	25	12 1/2	Jan. 1897	600,000	G.
Mammoth	Utah	400,000	10,000,000	25	05	Nov. 1896	1,150,000	G, S, C.
Moon Anchor Gold	Colorado	600,000	600,000	1	01	July 1896	24,000	G.
New Elkhorn	Colorado	300,000	1,500,000	5	24	Sep. 1896	72,000	G.
New York & Hon. Rosario	Central A.	150,000	1,500,000	10	10	Jan. 1897	690,000	S, G.
Mt. Rosa	Colorado	1,000,000	1,000,000	1	00 1/2	Oct. 1896	30,000	G.
Napa	California	100,000	700,000	7	10	January 1897	820,000	Q.
North Star	California	100,000	1,000,000	10	50	June 1893	450,000	G.
Nugget	Colorado	1,000,000	1,000,000	1	00 1/2	Jan. 1895	10,000	G.
Omaha Consolidated	California	24,000	2,400,000	100	15	July 1894	97,200	G.
Ontario	Utah	150,000	15,000,000	100	10	January 1897	13,370,000	S, L.
Osceola	Michigan	50,000	1,250,000	25	1 00	February 1897	2,122,500	C.
Pacific Coast Borax	California	20,000	2,000,000	100	1 00	July 1893	422,500	B.
Parrot	Montana	230,000	2,300,000	10	10	June 1894	1,622,000	C.
Plumas Eureka	California	140,600	1,406,000	10	18	October 1893	2,696,295	G.
Portland	Colorado	3,000,000	3,000,000	1	01	January 1897	893,000	G, S.
Quicksilver Pref.	California	43,000	4,300,000	100	25	June 1891	1,823,911	Q.
Quincy	Michigan	50,000	1,250,000	25	00	February 1897	9,070,000	C.
Red Cloud	Idaho	200,000	1,000,000	5	10	December 1892	153,000	S, L.
Rico Aspen	Colorado	1,000,000	5,000,000	5	02	November 1894	325,000	S.
Sierra Buttes	California	222,500	2,225,000	10	12	October 1893	1,559,933	G.
Silver, Mg.	New Mexico	500,000	500,000	1	4 05	December 1891	300,000	S.
Small Hopes Consolidated	Colorado	250,000	5,000,000	20	10	March 1896	3,275,000	S.
Standard	California	100,000	10,000,000	100	10	June 1895	3,771,159	G, S.
St. Joseph	Missouri	250,000	2,500,000	10	25	Dec. 1895	2,524,000	L.
Silver King	Utah	150,000	3,000,000	20	25	Jan. 1897	90,000	S, L, G.
Smuggler Union	Colorado	50,000	5,000,000	100	1 00	October 1896	150,000	G, S.
Tom Boy	Colorado	200,000	200,000	10	20	March 1896	410,000	G.
Tamarack	Michigan	50,000	1,250,000	25	3 00	Dec. 1896	4,770,000	C.
Trinity River	Colorado	500,000	500,000	1	April 1894	37,500	G.
Union	Colorado	1,250,000	1,250,000	1	01	June 1896	73,000	S.
United Verde	Arizona	300,000	3,000,000	10	25	December 1893	562,500	C.
Utah	Utah	100,000	1,000,000	10	02	Nov. 1896	175,000	G, S.
Victor	Colorado	200,000	1,000,000	5	10	Dec. 1896	705,000	G.
War Eagle	B. C.	500,000	500,000	1	08	October 1896	187,000
Yankee Girl	Colorado	260,000	1,300,000	5	25	July 1891	520,000	S.

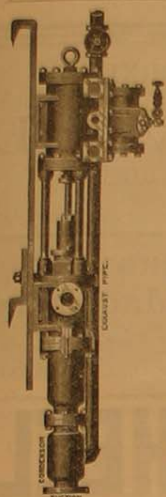
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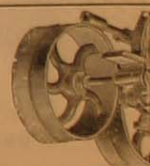
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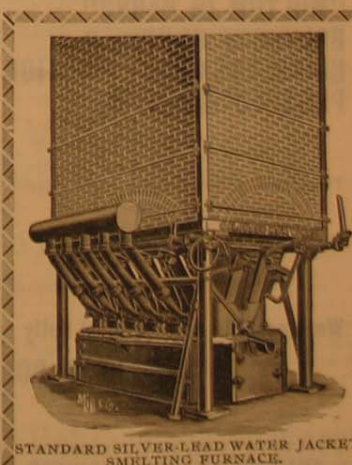
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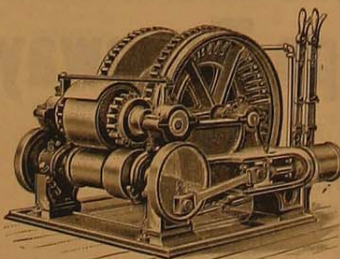
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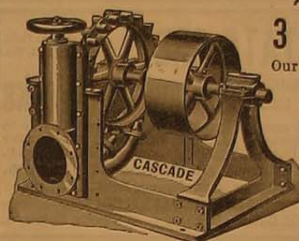
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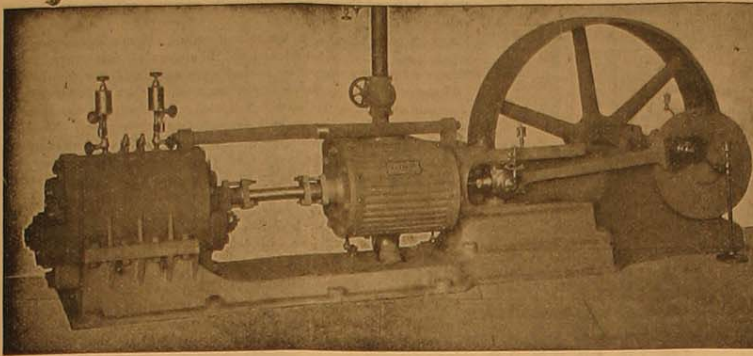
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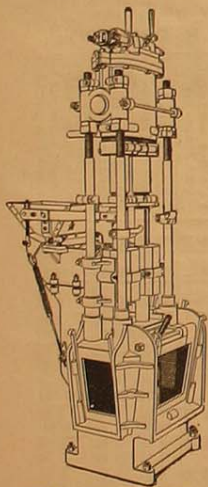
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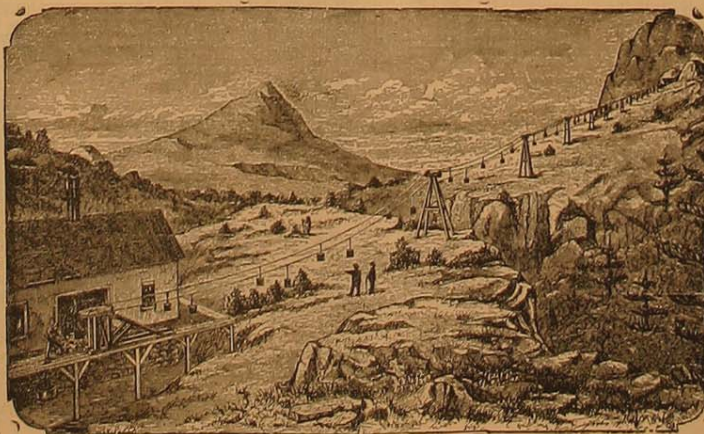
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		Ore Concentrates			Lead Bullion, valuation not to exceed \$100 per ton.
		Valuation not to exceed \$50 per ton.	Valuation not to exceed \$100 per ton.	Valuation not to exceed \$500 per ton.	Base Metal, Copper Matte, Bar and Black Copper, valuation not to exceed \$300 per ton.
SONORA RAILWAY					
Guaymas, Mex.	El Paso	10.00	11.50	13.50	
	Pueblo	12.50	14.00	16.00	
	Denver	13.50	15.00	17.00	
Ortiz, " "	Kansas City	15.50	17.00	19.00	
	El Paso	9.50	11.00	13.00	
	Pueblo	12.00	13.50	15.50	
Torres, " "	Denver	13.00	14.50	16.50	
	Kansas City	14.50	16.00	18.00	
	El Paso	9.00	10.50	12.50	
Hermosillo, " "	Pueblo	11.50	13.00	15.00	
	Denver	12.50	14.00	16.00	
	Kansas City	13.50	15.00	17.00	
Pesqueira, " "	El Paso	8.50	10.00	12.00	
	Pueblo	10.00	11.50	13.50	
	Denver	12.00	13.50	15.50	
Querebani, " "	Kansas City	12.00	13.50	15.50	
	El Paso	8.00	9.50	11.50	
	Pueblo	10.50	12.00	14.00	
Santa Ana, " "	Denver	11.50	13.00	15.00	
	Kansas City	11.50	13.00	15.00	
Magdalena, " "	El Paso	7.50	9.00	11.00	
	Pueblo	10.00	11.50	13.50	
	Denver	11.00	12.50	14.50	
Imuris, " "	Kansas City	11.00	12.50	14.50	
	El Paso	7.00	8.50	10.50	
	Pueblo	9.50	11.00	13.00	
Nogales, A. T.	Denver	10.50	12.00	14.00	
	Kansas City	11.50	13.00	15.00	
	El Paso	6.50	8.00	10.00	
Calabasas, " "	Pueblo	9.00	10.50	12.50	
	Denver	10.00	11.50	13.50	
	Kansas City	11.00	12.50	14.50	
Sanford, " "	El Paso	5.50	7.00	9.00	
	Pueblo	8.00	9.50	11.50	
	Denver	9.00	10.50	12.50	
Crittenden, " "	Kansas City	9.00	10.50	12.50	
	El Paso	5.00	6.50	8.50	
	Pueblo	7.50	9.00	11.00	
Fairbank, " "	Denver	8.50	10.00	12.00	
	Kansas City	10.00	11.50	13.50	
	El Paso	4.50	6.00	8.00	
Tucson, " "	Pueblo	9.00	10.50	12.50	
	Denver	10.00	11.50	13.50	
	Kansas City	11.00	12.50	14.50	
Benson, " "	El Paso	8.00	9.50	11.50	
	Pueblo	10.50	12.00	14.00	
	Denver	11.50	13.00	15.00	
Steins Pass, N.M.	Kansas City	10.00	11.50	13.50	
	El Paso	8.50	10.00	12.00	
	Pueblo	11.00	12.50	14.50	
Lordsburg, " "	Denver	9.50	11.00	13.00	
	Kansas City	10.50	12.00	14.00	
	El Paso	2.50	4.00	5.50	
Silver City, " "	Pueblo	6.50	8.00	10.00	
	Denver	7.50	9.00	11.00	
	Kansas City	8.50	10.00	12.00	
Hudson, " "	El Paso	2.40	3.90	5.40	
	Pueblo	4.90	6.40	7.90	
	Denver	5.90	7.40	8.90	
Deming, " "	Kansas City	6.90	8.40	9.90	
	El Paso	2.20	3.70	5.20	
	Pueblo	4.70	6.20	7.70	
Florida and Lake Valley, " "	Denver	5.70	7.20	8.70	
	Kansas City	6.70	8.20	9.70	
	El Paso	2.20	3.70	5.20	
Nutt, " "	Pueblo	6.00	7.50	9.00	
	Denver	7.00	8.50	10.00	
	Kansas City	8.00	9.50	11.00	
El Paso, " "	El Paso	1.50	3.00	4.50	
	Pueblo	4.00	5.50	7.00	
	Denver	5.00	6.50	8.00	
Las Cruces, " "	Kansas City	6.00	7.50	9.00	
	El Paso	1.50	3.00	4.50	
	Pueblo	4.00	5.50	7.00	
Rincon, " "	Denver	5.00	6.50	8.00	
	Kansas City	6.00	7.50	9.00	
	El Paso	1.50	3.00	4.50	

FROM

TO

Car Loads in dollars and cents per ton of 2,000 lbs.

Ore Concentrates.

Valuation not to exceed \$50 per ton.

Valuation not to exceed \$100 per ton.

Valuation not to exceed \$500 per ton.

Lead Bullion, valuation not to exceed \$100 per ton.

Base Metal, Copper Matte, Bar and Black Copper, valuation not to exceed \$300 per ton.

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ATLANTIC & PACIFIC RAILROAD

Engle, N. M.	El Paso	2.20	3.70	5.20	6.70
	Pueblo	4.70	6.20	7.70	9.20
	Denver	5.70	7.20	8.70	10.20
Lava, " "	Kansas City	6.70	8.20	9.70	11.20
	El Paso	2.20	3.70	5.20	6.70
	Pueblo	4.70	6.20	7.70	9.20
San Marcial, " "	Denver	5.70	7.20	8.70	10.20
	Kansas City	6.70	8.20	9.70	11.20
	El Paso	2.40	3.90	5.40	6.90
Carthage, " "	Pueblo	4.90	6.40	7.90	9.40
	Denver	5.90	7.40	8.90	10.40
	Kansas City	6.90	8.40	9.90	11.40
San Antonio, " "	El Paso	2.40	3.90	5.40	6.90
	Pueblo	4.90	6.40	7.90	9.40
	Denver	5.90	7.40	8.90	10.40
Magdalena, " "	Kansas City	6.90	8.40	9.90	11.40
	El Paso	2.60	4.10	5.60	7.10
	Pueblo	5.10	6.60	8.10	9.60
Socorro, " "	Denver	6.10	7.60	9.10	10.60
	Kansas City	7.10	8.60	10.10	11.60
	El Paso	2.60	4.10	5.60	7.10
Albuquerque, " "	Pueblo	5.10	6.60	8.10	9.60
	Denver	6.10	7.60	9.10	10.60
	Kansas City	7.10	8.60	10.10	11.60
Bernalillo, " "	El Paso	3.20	4.70	6.20	7.70
	Pueblo	5.70	7.20	8.70	10.20
	Denver	6.70	8.20	9.70	11.20
Wallace, " "	Kansas City	7.70	9.20	10.70	12.20
	El Paso	3.40	4.90	6.40	7.90
	Pueblo	5.90	7.40	8.90	10.40
Los Cerillos, " "	Denver	6.90	8.40	9.90	11.40
	Kansas City	7.90	9.40	10.90	12.40
	El Paso	3.60	5.10	6.60	8.10
Flagstaff, A. T.	Pueblo	6.50	8.00	9.50	11.00
	Denver	7.50	9.00	10.50	12.00
	Kansas City	8.50	10.00	11.50	13.00
Seligman, " "	El Paso	7.50	9.00	10.50	12.00
	Pueblo	10.00	11.50	13.00	14.50
	Denver	11.00	12.50	14.00	15.50
Peach Spgs, " "	Kansas City	12.00	13.50	15.00	16.50
	El Paso	7.50	9.00	10.50	12.00
	Pueblo	10.00	11.50	13.00	14.50
Hackberry, " "	Denver	11.00	12.50	14.00	15.50
	Kansas City	12.00	13.50	15.00	16.50
	El Paso	7.50	9.00	10.50	12.00
Kingman, " "	Pueblo	10.00	11.50	13.00	14.50
	Denver	11.00	12.50	14.00	15.50
	Kansas City	12.00	13.50	15.00	16.50
Yucca, " "	El Paso	7.50	9.00	10.50	12.00
	Pueblo	10.00	11.50	13.00	14.50
	Denver	11.00	12.50	14.00	15.50
Needles, Cal.	Kansas City	12.00	13.50	15.00	16.50
	El Paso	7.50	9.00	10.50	12.00
	Pueblo	10.00	11.50	13.00	14.50
Fenner, " "	Denver	11.00	12.50	14.00	15.50
	Kansas City	12.00	13.50	15.00	16.50
	El Paso	7.50	9.00	10.50	12.00
Bagdad, " "	Pueblo	10.00	11.50	13.00	14.50
	Denver	11.00	12.50	14.00	15.50
	Kansas City	12.00	13.50	15.00	16.50
Daggett, " "	El Paso	7.50	9.00	10.50	12.00
	Pueblo	10.00	11.50	13.00	14.50
	Denver	11.00	12.50	14.00	15.50
Barstow, " "	Kansas City	12.00	13.50	15.00	16.50
	El Paso	7.50	9.00	10.50	12.00
	Pueblo	10.00	11.50	13.00	14.50
Kramer, " "	Denver	11.00	12.50	14.00	15.50
	Kansas City	12.00	13.50	15.00	16.50
	El Paso	7.50	9.00	10.50	12.00
Mojave, " "	Pueblo	10.00	11.50	13.00	14.50
	Denver	11.00	12.50	14.00	15.50
	Kansas City	12.00	13.50	15.00	16.50

Rates on Copper or Zinc Ore to Canon City.

Taking Effect July 1st, 1891.—So far as rates on Copper or Zinc Ores are concerned, Canon City, Col., will be considered as common with Pueblo; in other words the rates shown in Tariff as applying on shipments of Ore to Pueblo, will also apply on shipments of Copper or Zinc Ore to Canon City.

In the absence of positive information as to the value of Ore, Ore Concentrates, or Base Metal, Agents will bill at rates sufficiently high to protect the Company. These rates can be corrected when evidence of actual value is produced.

The market price at destination, to be verified by assays made

by the Railroad Company, at owner's expense, will govern the value and determine the rate.

Agents must cause shippers to understand the condition upon which these rates are based, and should make their receipts read: "Rates subject to correction according to value at destination."

These rates only apply on lots of ten tons or over. On lots of four tons and under ten, 30 per cent, and on lots of one ton and less than four, 40 per cent will be added to above rates. Base Metal, Copper Matte and Ore Concentrates on lots of less than one ton, will take first-class rates from the above points, except when the rate based on valuation makes it higher, that rates on small lots of high value may not be less than the rates when in lots of one ton or over as above.

Charges on Ore in car-loads must be guaranteed, and on lots less than a car-load must in all cases be prepaid.

Omaha Rates.—The Rates to Omaha, Neb., all grades, will be \$1 per ton higher than the rates to Kansas City.

NOTE.—All shipments of Ore and Concentrates valued not to exceed \$50 per ton must be billed at the rate for Ore and Concentrates, "Valuation over \$50 not to exceed \$100 per ton," and shipping receipt must be issued by agent at said rate. Agent at destination is authorized to correct the rate for Ore and Concentrates, "Valuation not to exceed \$50 per ton," upon presentation of properly certified smelter returns, showing that the value does not exceed \$50 per ton.

Intermediate points not named will take rates provided for next station beyond.

SOUTHERN CALIFORNIA RAILWAY.

Rate on Ore in car loads, valuation not to exceed \$50 per ton, minimum weight 24,000 lbs. Oro Grande, Cal., to Pueblo, Col., \$10.30 per ton.

Same, Victor, Cal., to Pueblo, \$10.35 per ton. Ore, car loads, when coming from the Republic of Mexico valuation not to exceed \$50 per ton; San Diego or National City to Denver, Col., and Pueblo, Col., \$12 per ton of 2,000 lbs.

Ore, valuation not to exceed \$100 per net ton and so receipted for, minimum weight 30,000 lbs. 75c per 100 lbs. to Denver and Pueblo, Col., from all points on the Southern California Railway.

ORE TARIFF.

From Points in New Mexico, Arizona and California, to El Paso, San Francisco and Vallejo Junction.

SOUTHERN PACIFIC R. R. COMPANY.

FROM	TO	Valuation not to ex- ceed \$25 per ton.	Valuation not to ex- ceed \$50 per ton.	Valuation not to ex- ceed \$100 per ton.	Valuation not to ex- ceed \$500 per ton.	Lead Bullion, Copper Matte, Bar and Black Copper, value not to exceed \$300 per ton.
El Paso, Tex.	San Francisco	\$9.10	\$9.10	\$9.10	11.20	2.20
	El Paso	2.00		2.00	2.20	2.20
Deming, N.M.	San Francisco	\$9.10		\$9.10	11.20	10.20
	El Paso	2.00		2.00	2.20	2.20
Gage	San Francisco	\$9.10		\$9.10	11.20	2.80
	El Paso	2.50		2.60	3.00	3.80
Separ	San Francisco	\$9.10		\$9.10	11.20	17.60
	El Paso	2.50	3.00	3.00	3.60	4.40
Lordsburg,	San Francisco	\$9.10		\$9.10	11.20	17.40
	El Paso	2.50	3.20	3.20	4.00	5.00
Steins Pass	San Francisco	\$9.10		\$9.10	11.20	7.00
	El Paso	3.00	3.60	3.60	4.40	5.80
Bowie, A. T.	San Francisco				11.20	2.00
	El Paso	3.00	4.00	4.00	5.00	5.40
Willcox,	San Francisco	\$7.00		10	11.20	8.00
	El Paso	3.00	4.20	4.20	5.20	8.00
Dragon Summit,	San Francisco	\$7.00		\$7.00	11.20	2.00
	El Paso	3.50	4.35	4.60	5.60	7.40
Benson	San Francisco	\$7.00	9.00	9.00	11.20	5.60
	El Paso	5.00	4.35	5.20	6.40	8.00
Tucson	San Francisco	\$7.00	9.00	8.60	10.60	15.00
	El Paso	4.00	5.00	6.00	7.60	10.00
Casa Grande	San Francisco	\$7.00	8.00	8.00	10.00	14.00
	El Paso	6.40	6.40	6.40	8.00	10.00
Maricopa,	San Francisco	\$7.00		7.60	9.00	13.80
	El Paso		6.70	6.70	8.40	11.00
Gila Bend,	San Francisco	\$7.00	7.40	7.40	9.20	13.00
	El Paso	7.05	7.05	7.05	8.85	12.00
Aztec	San Francisco	7.00	7.00	7.00	8.80	12.00
	El Paso	7.55	7.55	7.55	9.45	12.80
Gila City	San Francisco	6.60		6.80	8.20	11.00
	El Paso			7.70	9.60	13.40
Yuma	San Francisco				8.40	11.20
	El Paso					
Newhall, Cal.	San Francisco	\$6.00	\$5.00	\$6.00		
Mojave	San Francisco	\$3.85	\$3.85	\$3.85	\$5.00	
Caliente	San Francisco	\$3.80		\$3.80	\$4.95	
Milton	San Francisco	\$2.10		2.10		
Hollister	San Francisco		2.50			

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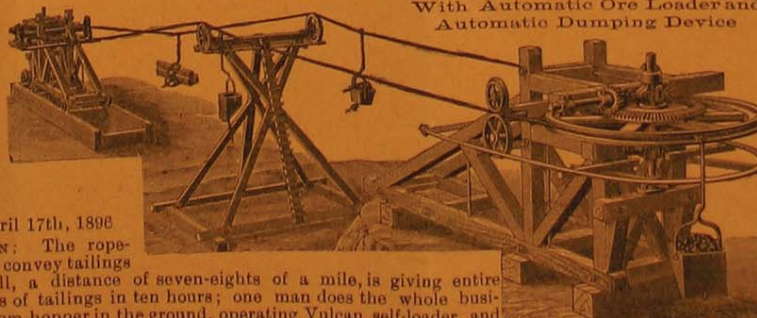
We invite an inspection of our goods at the New Store,

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For Conveying
Ore,
Cordwood,
Etc.



With Automatic Ore Loader and
Automatic Dumping Device

EMPIRE, NEVADA, April 17th, 1896

Vulcan Iron Works:—GENTLEMEN: The ropeway furnished by your Company to convey tailings from Morgan Mill to Mexican Mill, a distance of seven-eighths of a mile, is giving entire satisfaction. We transport 200 tons of tailings in ten hours; one man does the whole business, including elevating tailings from hopper in the ground, operating Vulcan self-loader, and attending to the ropeway generally. The self-dumper requires no attention whatever. The Vulcan loader I consider the best feature in the whole Ropeway, making it possible for one man to load 200 tons in ten hours.

Yours very truly,

J. P. WOODBURY, Supt.

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Manufacturers of Mining Machinery,
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Relapse, guaranteed best Babbitt Made
COPPER FOR AMALGAMATING PLATES,
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sis, \$1; platinum, nickel or tin, \$5.00.
Write for full price list and mailing envelopes

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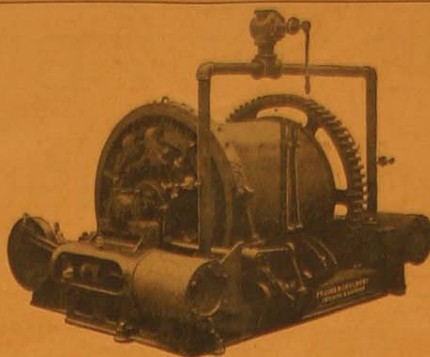
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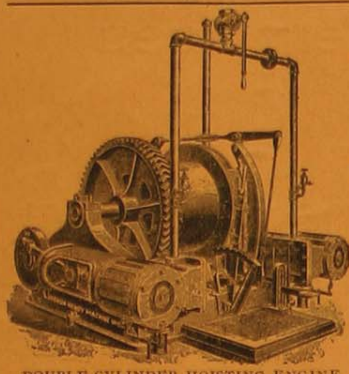
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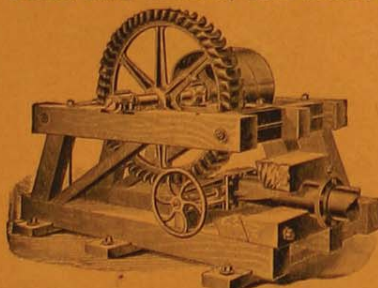
"PELTON TYPE"

KNIGHT WATER WHEELS

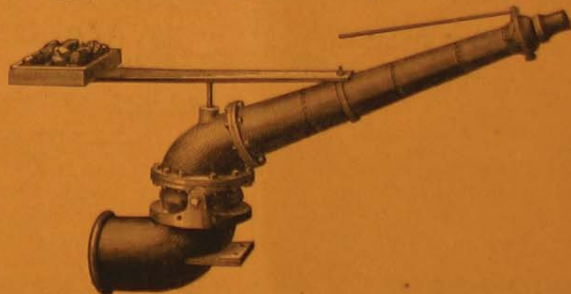
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